

SEQUENCE LISTING

<110> Foster, Donald C.
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Madden, Karen L.
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<120> Soluble Interleukin-20 Receptor

<130> 99-107

<150> 60/171 966

<151> 1999-12-23

<150> 60/213 416

<151> 2000-06-22

<160> 72

<170> FastSEO for Windows Version 3.0

<210> 1

211 176

-212- DDT

<212> PRI
<213> Home captions

-400- 1

Met Lys Ala Ser Ser Leu Ala Phe Ser	Leu Leu Ser Ala Ala Phe Tyr
1 5 10 15	
Leu Leu Trp Thr Pro Ser Thr Gly Leu Lys Thr Leu Asn Leu Gly Ser	
20 25 30	
Cys Val Ile Ala Thr Asn Leu Gln Glu Ile Arg Asn Gly Phe Ser Asp	
35 40 45	
Ile Arg Gly Ser Val Gln Ala Lys Asp Gly Asn Ile Asp Ile Arg Ile	
50 55 60	
Leu Arg Arg Thr Glu Ser Leu Gln Asp Thr Lys Pro Ala Asn Arg Cys	
65 70 75 80	

Cys Leu Leu Arg His Leu Leu Arg Leu Tyr Leu Asp Arg Val Phe Lys
 85 90 95
 Asn Tyr Gln Thr Pro Asp His Tyr Thr Leu Arg Lys Ile Ser Ser Leu
 100 105 110
 Ala Asn Ser Phe Leu Thr Ile Lys Lys Asp Leu Arg Leu Cys His Ala
 115 120 125
 His Met Thr Cys His Cys Gly Glu Glu Ala Met Lys Lys Tyr Ser Gln
 130 135 140
 Ile Leu Ser His Phe Glu Lys Leu Glu Pro Gln Ala Ala Val Val Lys
 145 150 155 160
 Ala Leu Gly Glu Leu Asp Ile Leu Leu Gln Trp Met Glu Glu Thr Glu
 165 170 175

<210> 2
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 2
 Leu Lys Thr Leu Asn Leu Gly Ser Cys Val Ile Ala Thr Asn Leu Gln
 1 5 10 15
 Glu Ile Arg Asn Gly Phe Ser Asp Ile Arg Gly Ser Val Gln Ala Lys
 20 25 30
 Asp Gly Asn Ile Asp Ile Arg Ile Leu Arg Arg Thr Glu Ser Leu Gln
 35 40 45
 Asp Thr Lys Pro Ala Asn Arg Cys Cys Leu Leu Arg His Leu Leu Arg
 50 55 60
 Leu Tyr Leu Asp Arg Val Phe Lys Asn Tyr Gln Thr Pro Asp His Tyr
 65 70 75 80
 Thr Leu Arg Lys Ile Ser Ser Leu Ala Asn Ser Phe Leu Thr Ile Lys
 85 90 95
 Lys Asp Leu Arg Leu Cys His Ala His Met Thr Cys His Cys Gly Glu
 100 105 110
 Glu Ala Met Lys Lys Tyr Ser Gln Ile Leu Ser His Phe Glu Lys Leu
 115 120 125
 Glu Pro Gln Ala Ala Val Val Lys Ala Leu Gly Glu Leu Asp Ile Leu
 130 135 140
 Leu Gln Trp Met Glu Glu Thr Glu
 145 150

<210> 3
 <211> 151
 <212> PRT

<213> Homo sapiens

<400> 3

Met	Lys	Ala	Ser	Ser	Leu	Ala	Phe	Ser	Leu	Leu	Ser	Ala	Ala	Phe	Tyr
1															
														15	
Leu	Leu	Trp	Thr	Pro	Ser	Thr	Gly	Leu	Lys	Thr	Leu	Asn	Leu	Gly	Ser
														30	
Cys	Val	Ile	Ala	Thr	Asn	Leu	Gln	Glu	Ile	Arg	Asn	Gly	Phe	Ser	Asp
														45	
Ile	Arg	Gly	Ser	Val	Gln	Ala	Lys	Asp	Gly	Asn	Ile	Asp	Ile	Arg	Ile
														60	
Leu	Arg	Arg	Thr	Glu	Ser	Leu	Gln	Asp	Thr	Lys	Pro	Ala	Asn	Arg	Cys
														80	
Cys	Leu	Leu	Arg	His	Leu	Leu	Arg	Leu	Tyr	Leu	Asp	Arg	Val	Phe	Lys
														95	
Asn	Tyr	Gln	Thr	Pro	Asp	His	Tyr	Thr	Leu	Arg	Lys	Ile	Ser	Ser	Leu
														110	
Ala	Asn	Ser	Phe	Leu	Thr	Ile	Lys	Lys	Asp	Leu	Arg	Leu	Cys	Leu	Glu
														125	
Pro	Gln	Ala	Ala	Val	Val	Lys	Ala	Leu	Gly	Glu	Leu	Asp	Ile	Leu	Leu
														140	
Gln	Trp	Met	Glu	Glu	Thr	Glu									
145															

<210> 4

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4

Leu	Lys	Thr	Leu	Asn	Leu	Gly	Ser	Cys	Val	Ile	Ala	Thr	Asn	Leu	Gln
1															
														15	
Glu	Ile	Arg	Asn	Gly	Phe	Ser	Asp	Ile	Arg	Gly	Ser	Val	Gln	Ala	Lys
														30	
Asp	Gly	Asn	Ile	Asp	Ile	Arg	Ile	Leu	Arg	Arg	Thr	Glu	Ser	Leu	Gln
														45	
Asp	Thr	Lys	Pro	Ala	Asn	Arg	Cys	Cys	Leu	Leu	Arg	His	Leu	Leu	Arg
														60	
Leu	Tyr	Leu	Asp	Arg	Val	Phe	Lys	Asn	Tyr	Gln	Thr	Pro	Asp	His	Tyr
														80	
Thr	Leu	Arg	Lys	Ile	Ser	Ser	Leu	Ala	Asn	Ser	Phe	Leu	Thr	Ile	Lys
														95	
85															

Lys Asp Leu Arg Leu Cys Leu Glu Pro Gln Ala Ala Val Val Lys Ala
 100 105 110
 Leu Gly Glu Leu Asp Ile Leu Leu Gln Trp Met Glu Glu Thr Glu
 115 120 125

<210> 5
 <211> 176
 <212> PRT
 <213> Mus musculus

<400> 5
 Met Lys Gly Phe Gly Leu Ala Phe Gly Leu Phe Ser Ala Val Gly Phe
 1 5 10 15
 Leu Leu Trp Thr Pro Leu Thr Gly Leu Lys Thr Leu His Leu Gly Ser
 20 25 30
 Cys Val Ile Thr Ala Asn Leu Gln Ala Ile Gln Lys Glu Phe Ser Glu
 35 40 45
 Ile Arg Asp Ser Val Gln Ala Glu Asp Thr Asn Ile Asp Ile Arg Ile
 50 55 60
 Leu Arg Thr Thr Glu Ser Leu Lys Asp Ile Lys Ser Leu Asp Arg Cys
 65 70 75 80
 Cys Phe Leu Arg His Leu Val Arg Phe Tyr Leu Asp Arg Val Phe Lys
 85 90 95
 Val Tyr Gln Thr Pro Asp His His Thr Leu Arg Lys Ile Ser Ser Leu
 100 105 110
 Ala Asn Ser Phe Leu Ile Ile Lys Lys Asp Leu Ser Val Cys His Ser
 115 120 125
 His Met Ala Cys His Cys Gly Glu Glu Ala Met Glu Lys Tyr Asn Gln
 130 135 140
 Ile Leu Ser His Phe Ile Glu Leu Glu Leu Gln Ala Ala Val Val Lys
 145 150 155 160
 Ala Leu Gly Glu Leu Gly Ile Leu Leu Arg Trp Met Glu Glu Met Leu
 165 170 175

<210> 6
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 <212> PRT
 <213> Mus musculus

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 Leu Lys Thr Leu His Leu Gly Ser Cys Val Ile Thr Ala Asn Leu Gln
 1 5 10 15

Ala Ile Gln Lys Glu Phe Ser Glu Ile Arg Asp Ser Val Gln Ala Glu
 20 25 30
 Asp Thr Asn Ile Asp Ile Arg Ile Leu Arg Thr Thr Glu Ser Leu Lys
 35 40 45
 Asp Ile Lys Ser Leu Asp Arg Cys Cys Phe Leu Arg His Leu Val Arg
 50 55 60
 Phe Tyr Leu Asp Arg Val Phe Lys Val Tyr Gln Thr Pro Asp His His
 65 70 75 80
 Thr Leu Arg Lys Ile Ser Ser Leu Ala Asn Ser Phe Leu Ile Ile Lys
 85 90 95
 Lys Asp Leu Ser Val Cys His Ser His Met Ala Cys His Cys Gly Glu
 100 105 110
 Glu Ala Met Glu Lys Tyr Asn Gln Ile Leu Ser His Phe Ile Glu Leu
 115 120 125
 Glu Leu Gln Ala Ala Val Val Lys Ala Leu Gly Glu Leu Gly Ile Leu
 130 135 140
 Leu Arg Trp Met Glu Glu Met Leu
 145 150

<210> 7
 <211> 144
 <212> PRT
 <213> Mus musculus

<400> 7
 Cys Val Ile Thr Ala Asn Leu Gln Ala Ile Gln Lys Glu Phe Ser Glu
 1 5 10 15
 Ile Arg Asp Ser Val Gln Ala Glu Asp Thr Asn Ile Asp Ile Arg Ile
 20 25 30
 Leu Arg Thr Thr Glu Ser Leu Lys Asp Ile Lys Ser Leu Asp Arg Cys
 35 40 45
 Cys Phe Leu Arg His Leu Val Arg Phe Tyr Leu Asp Arg Val Phe Lys
 50 55 60
 Val Tyr Gln Thr Pro Asp His His Thr Leu Arg Lys Ile Ser Ser Leu
 65 70 75 80
 Ala Asn Ser Phe Leu Ile Ile Lys Lys Asp Leu Ser Val Cys His Ser
 85 90 95
 His Met Ala Cys His Cys Gly Glu Glu Ala Met Glu Lys Tyr Asn Gln
 100 105 110
 Ile Leu Ser His Phe Ile Glu Leu Glu Leu Gln Ala Ala Val Val Lys
 115 120 125
 Ala Leu Gly Glu Leu Gly Ile Leu Leu Arg Trp Met Glu Glu Met Leu
 130 135 140

06745792 122200

<210> 8
 <211> 154
 <212> PRT
 <213> Mus musculus

<400> 8
 Met Lys Gly Phe Gly Leu Ala Phe Gly Leu Phe Ser Ala Val Gly Phe
 1 5 10 15
 Leu Leu Trp Thr Pro Leu Thr Gly Leu Lys Thr Leu His Leu Gly Ser
 20 25 30
 Cys Val Ile Thr Ala Asn Leu Gln Ala Ile Gln Lys Glu Phe Ser Glu
 35 40 45
 Ile Arg Asp Ser Val Ser Leu Asp Arg Cys Cys Phe Leu Arg His Leu
 50 55 60
 Val Arg Phe Tyr Leu Asp Arg Val Phe Lys Val Tyr Gln Thr Pro Asp
 65 70 75 80
 His His Thr Leu Arg Lys Ile Ser Ser Leu Ala Asn Ser Phe Leu Ile
 85 90 95
 Ile Lys Lys Asp Leu Ser Val Cys His Ser His Met Ala Cys His Cys
 100 105 110
 Gly Glu Glu Ala Met Glu Lys Tyr Asn Gln Ile Leu Ser His Phe Ile
 115 120 125
 Glu Leu Glu Leu Gln Ala Ala Val Val Lys Ala Leu Gly Glu Leu Gly
 130 135 140
 Ile Leu Leu Arg Trp Met Glu Glu Met Leu
 145 150

<210> 9
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 9
 Leu Lys Thr Leu His Leu Gly Ser Cys Val Ile Thr Ala Asn Leu Gln
 1 5 10 15
 Ala Ile Gln Lys Glu Phe Ser Glu Ile Arg Asp Ser Val Ser Leu Asp
 20 25 30
 Arg Cys Cys Phe Leu Arg His Leu Val Arg Phe Tyr Leu Asp Arg Val
 35 40 45
 Phe Lys Val Tyr Gln Thr Pro Asp His His Thr Leu Arg Lys Ile Ser
 50 55 60

Ser Leu Ala Asn Ser Phe Leu Ile Ile Lys Lys Asp Leu Ser Val Cys
 65 70 75 80
 His Ser His Met Ala Cys His Cys Gly Glu Ala Met Glu Lys Tyr
 85 90 95
 Asn Gln Ile Leu Ser His Phe Ile Glu Leu Glu Leu Gln Ala Ala Val
 100 105 110
 Val Lys Ala Leu Gly Glu Leu Gly Ile Leu Leu Arg Trp Met Glu Glu
 115 120 125
 Met Leu
 130

<210> 10
 <211> 3516
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (237)...(1895)

<400> 10

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	Met 1

cg gct ccc ggc cgc ccg gcc ctg ccg ctg ccg ctg ccg ccg ctg Arg Ala Pro Gly Arg Pro Ala Leu Arg Pro Leu Pro Leu Pro Leu	287
5 10 15	

ctg ctg ttg ctc ctg gcg gcg cct tgg gga ccg gca gtt ccc tgt gtc Leu Leu Leu Leu Ala Ala Pro Trp Gly Arg Ala Val Pro Cys Val	335
20 25 30	

tct ggt ggt ttg cct aaa cct gca aac atc acc ttc tta tcc atc aac Ser Gly Gly Leu Pro Lys Pro Ala Asn Ile Thr Phe Leu Ser Ile Asn	383
35 40 45	

atg aag aat gtc cta caa tgg act cca cca gag ggt ctt caa gga gtt Met Lys Asn Val Leu Gln Trp Thr Pro Pro Glu Gly Leu Gln Gly Val	431
50 55 60 65	

aaa gtt act tac act gtg cag tat ttc ata tat ggg caa aag aaa ttg Lys Val Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly Gln Lys Lys Trp 70 75 80	479
ctg aat aaa tca gaa tgc aga aat atc aat aga acc tac tgt gat ctt Leu Asn Lys Ser Glu Cys Arg Asn Ile Asn Arg Thr Tyr Cys Asp Leu 85 90 95	527
tct gct gaa act tct gac tac gaa cac cag tat tat gcc aaa gtt aag Ser Ala Glu Thr Ser Asp Tyr Glu His Gln Tyr Tyr Ala Lys Val Lys 100 105 110	575
gcc att tgg gga aca aag tgt tcc aaa tgg gct gaa agt gga cgg ttc Ala Ile Trp Gly Thr Lys Cys Ser Lys Trp Ala Glu Ser Gly Arg Phe 115 120 125	623
tat cct ttt tta gaa aca caa att ggc cca cca gag gtg gca ctg act Tyr Pro Phe Leu Glu Thr Gln Ile Gly Pro Pro Glu Val Ala Leu Thr 130 135 140 145	671
aca gat gag aag tcc att tct gtt gtc ctg aca gct cca gag aag tgg Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr Ala Pro Glu Lys Trp 150 155 160	719
aag aga aat cca gaa gac ctt cct gtt tcc atg caa caa ata tac tcc Lys Arg Asn Pro Glu Asp Leu Pro Val Ser Met Gln Gln Ile Tyr Ser 165 170 175	767
aat ctg aag tat aac gtg tct gtg ttg aat act aaa tca aac aga acg Asn Leu Lys Tyr Asn Val Ser Val Leu Asn Thr Lys Ser Asn Arg Thr 180 185 190	815
tgg tcc cag tgt gtg acc aac cac acg ctg gtg ctc acc tgg ctg gag Trp Ser Gln Cys Val Thr Asn His Thr Leu Val Leu Thr Trp Leu Glu 195 200 205	863
ccg aac act ctt tac tgc gta cac gtg gag tcc ttc gtc cca ggg ccc Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Phe Val Pro Gly Pro 210 215 220 225	911
cct cgc cgt gct cag cct tct gag aag cag tgt gcc agg act ttg aaa	959

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Pro Arg Arg Ala Gln Pro Ser Glu Lys Gln Cys Ala Arg Thr Leu Lys			
230	235	240	
gat caa tca tca gag ttc aag gct aaa atc atc ttc tgg tat gtt ttg			1007
Asp Gln Ser Ser Glu Phe Lys Ala Lys Ile Ile Phe Trp Tyr Val Leu			
245	250	255	
ccc ata tct att acc gtg ttt ctt ttt tct gtg atg ggc tat tcc atc			1055
Pro Ile Ser Ile Thr Val Phe Leu Phe Ser Val Met Gly Tyr Ser Ile			
260	265	270	
tac cga tat atc cac gtt ggc aaa gag aaa cac cca gca aat ttg att			1103
Tyr Arg Tyr Ile His Val Gly Lys Glu Lys His Pro Ala Asn Leu Ile			
275	280	285	
ttg att tat gga aat gaa ttt gac aaa aga ttc ttt gtg cct gct gaa			1151
Leu Ile Tyr Gly Asn Glu Phe Asp Lys Arg Phe Phe Val Pro Ala Glu			
290	295	300	305
aaa atc gtg att aac ttt atc acc ctc aat atc tcg gat gat tct aaa			1199
Lys Ile Val Ile Asn Phe Ile Thr Leu Asn Ile Ser Asp Asp Ser Lys			
310	315	320	
att tct cat cag gat atg agt tta ctg gga aaa agc agt gat gta tcc			1247
Ile Ser His Gln Asp Met Ser Leu Leu Gly Lys Ser Ser Asp Val Ser			
325	330	335	
agc ctt aat gat cct cag ccc agc ggg aac ctg agg ccc cct cag gag			1295
Ser Leu Asn Asp Pro Gln Pro Ser Gly Asn Leu Arg Pro Pro Gln Glu			
340	345	350	
gaa gag gag gtg aaa cat tta ggg tat gct tcg cat ttg atg gaa att			1343
Glu Glu Glu Val Lys His Leu Gly Tyr Ala Ser His Leu Met Glu Ile			
355	360	365	
ttt tgt gac tct gaa gaa aac acg gaa ggt act tct ttc acc cag caa			1391
Phe Cys Asp Ser Glu Glu Asn Thr Glu Gly Thr Ser Phe Thr Gln Gln			
370	375	380	385
gag tcc ctc agc aga aca ata ccc ccg gat aaa aca gtc att gaa tat			1439
Glu Ser Leu Ser Arg Thr Ile Pro Pro Asp Lys Thr Val Ile Glu Tyr			
390	395	400	

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gaa tat gat gtc aga acc act gac att tgt gcg ggg cct gaa gag cag Glu Tyr Asp Val Arg Thr Thr Asp Ile Cys Ala Gly Pro Glu Glu Gln 405 410 415	1487
gag ctc agt ttg cag gag gag gtg tcc aca caa gga aca tta ttg gag Glu Leu Ser Leu Gln Glu Glu Val Ser Thr Gln Gly Thr Leu Leu Glu 420 425 430	1535
tcg cag gca gcg ttg gca gtc ttg ggc ccg caa acg tta cag tac tca Ser Gln Ala Ala Leu Ala Val Leu Gly Pro Gln Thr Leu Gln Tyr Ser 435 440 445	1583
tac acc cct cag ctc caa gac tta gac ccc ctg gcg cag gag cac aca Tyr Thr Pro Gln Leu Gln Asp Leu Asp Pro Leu Ala Gln Glu His Thr 450 455 460 465	1631
gac tcg gag gag ggg ccg gag gaa gag cca tcg acg acc ctg gtc gac Asp Ser Glu Glu Gly Pro Glu Glu Glu Pro Ser Thr Thr Leu Val Asp 470 475 480	1679
tgg gat ccc caa act ggc agg ctg tgt att cct tcg ctg tcc agc ttc Trp Asp Pro Gln Thr Gly Arg Leu Cys Ile Pro Ser Leu Ser Ser Phe 485 490 495	1727
gac cag gat tca gag ggc tgc gag cct tct gag ggg gat ggg ctc gga Asp Gln Asp Ser Glu Gly Cys Glu Pro Ser Glu Gly Asp Gly Leu Gly 500 505 510	1775
gag gag ggt ctt cta tct aga ctc tat gag gag ccg gct cca gac agg Glu Glu Gly Leu Leu Ser Arg Leu Tyr Glu Glu Pro Ala Pro Asp Arg 515 520 525	1823
cca cca gga gaa aat gaa acc tat ctc atg caa ttc atg gag gaa tgg Pro Pro Gly Glu Asn Glu Thr Tyr Leu Met Gln Phe Met Glu Glu Trp 530 535 540 545	1871
ggg tta tat gtg cag atg gaa aac tgatgccaac acttccttt gccttttgtt Gly Leu Tyr Val Gln Met Glu Asn 550	1925
tcctgtgcaa acaagtgagt caccccttg atcccagcca taaagtacct gggatgaaag aagtttttc cagtttgca gtgtctgtga gaattactta ttctttct ctatctcat agcacgtgt tgattggttc atgcatgtag gtctctaac aatgatggtg ggcctctgga	1985 2045 2105

003321-26754760

<210> 11

<211> 553

<212> PRT

<213> Homo sapiens

<400> 11

Met	Arg	Ala	Pro	Gly	Arg	Pro	Ala	Leu	Arg	Pro	Leu	Pro	Leu	Pro
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Leu	Leu	Leu	Leu	Leu	Leu	Ala	Ala	Pro	Trp	Gly	Arg	Ala	Val	Pro
								20		25			30	Cys
Val	Ser	Gly	Gly	Leu	Pro	Lys	Pro	Ala	Asn	Ile	Thr	Phe	Leu	Ser
						35			40		45			Ile
Asn	Met	Lys	Asn	Val	Leu	Gln	Trp	Thr	Pro	Pro	Glu	Gly	Leu	Gln
						50		55			60			Gly
Val	Lys	Val	Thr	Tyr	Thr	Val	Gln	Tyr	Phe	Ile	Tyr	Gly	Gln	Lys
							65		70		75		80	Lys
Trp	Leu	Asn	Lys	Ser	Glu	Cys	Arg	Asn	Ile	Asn	Arg	Thr	Tyr	Cys
						85			90			95	Asp	

Leu Ser Ala Glu Thr Ser Asp Tyr Glu His Gln Tyr Tyr Ala Lys Val
 100 105 110
 Lys Ala Ile Trp Gly Thr Lys Cys Ser Lys Trp Ala Glu Ser Gly Arg
 115 120 125
 Phe Tyr Pro Phe Leu Glu Thr Gln Ile Gly Pro Pro Glu Val Ala Leu
 130 135 140
 Thr Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr Ala Pro Glu Lys
 145 150 155 160
 Trp Lys Arg Asn Pro Glu Asp Leu Pro Val Ser Met Gln Gln Ile Tyr
 165 170 175
 Ser Asn Leu Lys Tyr Asn Val Ser Val Leu Asn Thr Lys Ser Asn Arg
 180 185 190
 Thr Trp Ser Gln Cys Val Thr Asn His Thr Leu Val Leu Thr Trp Leu
 195 200 205
 Glu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Phe Val Pro Gly
 210 215 220
 Pro Pro Arg Arg Ala Gln Pro Ser Glu Lys Gln Cys Ala Arg Thr Leu
 225 230 235 240
 Lys Asp Gln Ser Ser Glu Phe Lys Ala Lys Ile Ile Phe Trp Tyr Val
 245 250 255
 Leu Pro Ile Ser Ile Thr Val Phe Leu Phe Ser Val Met Gly Tyr Ser
 260 265 270
 Ile Tyr Arg Tyr Ile His Val Gly Lys Glu Lys His Pro Ala Asn Leu
 275 280 285
 Ile Leu Ile Tyr Gly Asn Glu Phe Asp Lys Arg Phe Phe Val Pro Ala
 290 295 300
 Glu Lys Ile Val Ile Asn Phe Ile Thr Leu Asn Ile Ser Asp Asp Ser
 305 310 315 320
 Lys Ile Ser His Gln Asp Met Ser Leu Leu Gly Lys Ser Ser Asp Val
 325 330 335
 Ser Ser Leu Asn Asp Pro Gln Pro Ser Gly Asn Leu Arg Pro Pro Gln
 340 345 350
 Glu Glu Glu Glu Val Lys His Leu Gly Tyr Ala Ser His Leu Met Glu
 355 360 365
 Ile Phe Cys Asp Ser Glu Glu Asn Thr Glu Gly Thr Ser Phe Thr Gln
 370 375 380
 Gln Glu Ser Leu Ser Arg Thr Ile Pro Pro Asp Lys Thr Val Ile Glu
 385 390 395 400
 Tyr Glu Tyr Asp Val Arg Thr Thr Asp Ile Cys Ala Gly Pro Glu Glu
 405 410 415
 Gln Glu Leu Ser Leu Gln Glu Glu Val Ser Thr Gln Gly Thr Leu Leu
 420 425 430

Glu	Ser	Gln	Ala	Ala	Leu	Ala	Val	Leu	Gly	Pro	Gln	Thr	Leu	Gln	Tyr
435							440							445	
Ser	Tyr	Thr	Pro	Gln	Leu	Gln	Asp	Leu	Asp	Pro	Leu	Ala	Gln	Glu	His
450							455						460		
Thr	Asp	Ser	Glu	Glu	Gly	Pro	Glu	Glu	Glu	Pro	Ser	Thr	Thr	Leu	Val
465							470					475			480
Asp	Trp	Asp	Pro	Gln	Thr	Gly	Arg	Leu	Cys	Ile	Pro	Ser	Leu	Ser	Ser
							485				490			495	
Phe	Asp	Gln	Asp	Ser	Glu	Gly	Cys	Glu	Pro	Ser	Glu	Gly	Asp	Gly	Leu
							500				505			510	
Gly	Glu	Glu	Gly	Leu	Leu	Ser	Arg	Leu	Tyr	Glu	Glu	Pro	Ala	Pro	Asp
							515				520			525	
Arg	Pro	Pro	Gly	Glu	Asn	Glu	Thr	Tyr	Leu	Met	Gln	Phe	Met	Glu	Glu
							530				535			540	
Trp	Gly	Leu	Tyr	Val	Gln	Met	Glu	Asn							
							545				550				

<210> 12
<211> 221
<212> PRT
<213> *Homo sapiens*

Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn His Thr Leu Val Leu
 165 170 175
 Thr Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Phe
 180 185 190
 Val Pro Gly Pro Pro Arg Arg Ala Gln Pro Ser Glu Lys Gln Cys Ala
 195 200 205
 Arg Thr Leu Lys Asp Gln Ser Ser Glu Phe Lys Ala Lys
 210 215 220

<210> 13
<211> 971
<212> DNA
<213> *Homo sapiens*

<220>
<221> CDS
<222> (18) . . . (950)

<400> 13

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gaattcggat ctaccaa atg cag act ttc aca atg gtt cta gaa gaa atc      50
Met Gln Thr Phe Thr Met Val Leu Glu Glu Ile
     1       5       10

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tgg aca agt ctt ttc atg tgg ttt ttc tac gca ttg att cca tgt ttg 98
Trp Thr Ser Leu Phe Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu
      15       20       25

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ctc aca gat gaa gtg gcc att ctg cct gcc cct cag aac ctc tct gta 146
 Leu Thr Asp Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val
 30 35 40

ctc tca acc aac atg aag cat ctc ttg atg tgg agc cca gtg atc gcg 194
 Leu Ser Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala
 45 50 55

cct gga gaa aca gtg tac tat tct gtc gaa tac cag ggg gag tac gag
 Pro Gly Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu
 60 65 70 75

act gaa ggt cct gag tgt gat gtc act gat gac atc acg gcc act gtg Thr Glu Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val 95 100 105	338
cca tac aac ctt cgt gtc agg gcc aca ttg ggc tca cag acc tca gcc Pro Tyr Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala 110 115 120	386
tgg agc atc ctg aag cat ccc ttt aat aga aac tca acc atc ctt acc Trp Ser Ile Leu Lys His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr 125 130 135	434
cga cct ggg atg gag atc acc aaa gat ggc ttc cac ctg gtt att gag Arg Pro Gly Met Glu Ile Thr Lys Asp Gly Phe His Leu Val Ile Glu 140 145 150 155	482
ctg gag gac ctg ggg ccc cag ttt gag ttc ctt gtg gcc tac tgg agg Leu Glu Asp Leu Gly Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Arg 160 165 170	530
agg gag cct ggt gcc gag gaa cat gtc aaa atg gtg agg agt ggg ggt Arg Glu Pro Gly Ala Glu Glu His Val Lys Met Val Arg Ser Gly Gly 175 180 185	578
att cca gtg cac cta gaa acc atg gag cca ggg gct gca tac tgt gtg Ile Pro Val His Leu Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val 190 195 200	626
aag gcc cag aca ttc gtg aag gcc att ggg agg tac agc gcc ttc agc Lys Ala Gln Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser 205 210 215	674
cag aca gaa tgt gtg gag gtg caa gga gag gcc att ccc ctg gta ctg Gln Thr Glu Cys Val Glu Val Gln Gly Glu Ala Ile Pro Leu Val Leu 220 225 230 235	722
gcc ctg ttt gcc ttt gtt ggc ttc atg ctg atc ctt gtg gtc gtg cca Ala Leu Phe Ala Phe Val Gly Phe Met Leu Ile Leu Val Val Pro 240 245 250	770
ctg ttc gtc tgg aaa atg ggc cggt ctc cag tac tcc tgt tgc ccc Leu Phe Val Trp Lys Met Gly Arg Leu Leu Gln Tyr Ser Cys Cys Pro 255 260 265	818

09745792.122200

gtg gtg gtc ctc cca gac acc ttg aaa ata acc aat tca ccc cag aag		866
Val Val Val Leu Pro Asp Thr Leu Lys Ile Thr Asn Ser Pro Gln Lys		
270	275	280
tta atc agc tgc aga agg gag gag gtg gat gcc tgt gcc acg gct gtg		914
Leu Ile Ser Cys Arg Arg Glu Glu Val Asp Ala Cys Ala Thr Ala Val		
285	290	295
atg tct cct gag gaa ctc ctc agg gcc tgg atc tca taggtttgcg		960
Met Ser Pro Glu Glu Leu Leu Arg Ala Trp Ile Ser		
300	305	310
gaaggctcgag		971
<210> 14		
<211> 311		
<212> PRT		
<213> Homo sapiens		
<400> 14		
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Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp Glu Val		
20 25 30		
Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser Thr Asn Met		
35 40 45		
Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly Glu Thr Val		
50 55 60		
Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu Tyr Thr Ser		
65 70 75 80		
His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu Gly Pro Glu		
85 90 95		
Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr Asn Leu Arg		
100 105 110		
Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser Ile Leu Lys		
115 120 125		
His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro Gly Met Glu		
130 135 140		
Ile Thr Lys Asp Gly Phe His Leu Val Ile Glu Leu Glu Asp Leu Gly		
145 150 155 160		
Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala		
165 170 175		

Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu
 180 185 190
 Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe
 195 200 205
 Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val
 210 215 220
 Glu Val Gln Gly Glu Ala Ile Pro Leu Val Leu Ala Leu Phe Ala Phe
 225 230 235 240
 Val Gly Phe Met Leu Ile Leu Val Val Pro Leu Phe Val Trp Lys
 245 250 255
 Met Gly Arg Leu Leu Gln Tyr Ser Cys Cys Pro Val Val Val Leu Pro
 260 265 270
 Asp Thr Leu Lys Ile Thr Asn Ser Pro Gln Lys Leu Ile Ser Cys Arg
 275 280 285
 Arg Glu Glu Val Asp Ala Cys Ala Thr Ala Val Met Ser Pro Glu Glu
 290 295 300
 Leu Leu Arg Ala Trp Ile Ser
 305 310

<210> 15
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 15
 Asp Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
 1 5 10 15
 Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly
 20 25 30
 Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu
 35 40 45
 Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu
 50 55 60
 Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr
 65 70 75 80
 Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser
 85 90 95
 Ile Leu Lys His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro
 100 105 110
 Gly Met Glu Ile Thr Lys Asp Gly Phe His Leu Val Ile Glu Leu Glu
 115 120 125
 Asp Leu Gly Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Arg Arg Glu
 130 135 140

Pro Gly Ala Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro
 145 150 155 160
 Val His Leu Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala
 165 170 175
 Gln Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr
 180 185 190
 Glu Cys Val Glu Val Gln Gly Glu Ala Ile Pro
 195 200

<210> 16
<211> 33
<212> DNA
<213> Homo sapiens

<400> 16
g c g a a t t c g a g t c t a c c a a a t g c a g a c t t t c a c

33

<210> 17
<211> 32
<212> DNA
<213> Homo sapiens

<400> 17
c g c t c g a g c c t t c c g c a a a c c t a t g a g a t c a

32

<210> 18
<211> 1379
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (132)...(1034)

<400> 18
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Met Gln Thr Phe Thr Met Val Leu Glu Glu Ile Trp Thr
1 5 10

60

120

170

a g t c t t c a t g t g g t t t c a t c g a t t c c a t g t t t g c a c a 218

Ser Leu Phe Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr			
15	20	25	
gat gaa gtg gcc att ctg cct gcc cct cag aac ctc tct gta ctc tca			266
Asp Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser			
30	35	40	45
acc aac atg aag cat ctc ttg atg tgg agc cca gtg atc gcg cct gga			314
Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly			
50	55	60	
gaa aca gtg tac tat tct gtc gaa tac cag ggg gag tac gag agc ctg			362
Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu			
65	70	75	
tac acg agc cac atc tgg atc ccc agc agc tgg tgc tca ctc act gaa			410
Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu			
80	85	90	
ggt cct gag tgt gat gtc act gat gac atc acg gcc act gtg cca tac			458
Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr			
95	100	105	
aac ctt cgt gtc agg gcc aca ttg ggc tca cag acc tca gcc tgg agc			506
Asn Leu Arg Val Arg Ala Thr Leu Gly Ser [?] Gln Thr Ser Ala Trp Ser			
110	115	120	125
atc ctg aag cat ccc ttt aat aga aac tca acc atc ctt acc cga cct			554
Ile Leu Lys His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro			
130	135	140	
ggg atg gag atc ccc aaa cat ggc ttc cac ctg gtt att gag ctg gag			602
Gly Met Glu Ile Pro Lys His Gly Phe His Leu Val Ile Glu Leu Glu			
145	150	155	
gac ctg ggg ccc cag ttt gag ttc ctt gtg gcc tac tgg acg agg gag			650
Asp Leu Gly Pro Gln Phe Glu Leu Val Ala Tyr Trp Thr Arg Glu			
160	165	170	
cct ggt gcc gag gaa cat gtc aaa atg gtg agg agt ggg ggt att cca			698
Pro Gly Ala Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro			
175	180	185	

00022247-26254760

gtg cac cta gaa acc atg gag cca ggg gct gca tac tgt gtg aag gcc Val His Leu Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala	190	195	200	205	746
cag aca ttc gtg aag gcc att ggg agg tac agc gcc ttc agc cag aca Gln Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr	210	215	220		794
gaa tgt gtg gag gtg caa gga gag gcc att ccc ctg gta ctg gcc ctg Glu Cys Val Glu Val Gln Gly Glu Ala Ile Pro Leu Val Leu Ala Leu	225	230	235		842
ttt gcc ttt gtt ggc ttc atg ctg atc ctt gtg gtc gtg cca ctg ttc Phe Ala Phe Val Gly Phe Met Leu Ile Leu Val Val Val Pro Leu Phe	240	245	250		890
gtc tgg aaa atg ggc cgg ctg ctc cag tac tcc tgt tgc ccc gtg gtg Val Trp Lys Met Gly Arg Leu Leu Gln Tyr Ser Cys Cys Pro Val Val	255	260	265		938
gtc ctc cca gac acc ttg aaa ata acc aat tca ccc cag gtt aat cag Val Leu Pro Asp Thr Leu Lys Ile Thr Asn Ser Pro Gln Val Asn Gln	270	275	280	285	986
ctg cag aag gga gga ggt gga tgc ctg tgc cac ggc tgt gat gtc tcc Leu Gln Lys Gly Gly Gly Cys Leu Cys His Gly Cys Asp Val Ser	290	295	300		1034
tgaggaaactc ctcaggccct ggatctcata tcagggttgc ggaaggccc aggtgaacc gagaacctgg tctgcattgac atggaaacca tgaggggaca agtgtgtttt ctgtttccg					1094
ccacggacaa gggatggag aagttagaaag acgcctgttgc ctacaaggctt agaagcaacc atccaggcga gggtgtttt tctaaccagaa caactgactg aggtcatggg gtttgtacc					1154
tcttagactttt gggtttccac ttgtttgttgc gggcaaccctt gggaaaatgt attccatccc ttccgttccca aqttttctca tctataatqq qqqatccctaa caaaactg					1214
					1274
					1334
					1382

<210> 19
<211> 301
<212> PRT
<213> *Homo sapiens*

<400> 19

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1 5 10 15

Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp Glu Val
 20 25 30
 Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser Thr Asn Met
 35 40 45
 Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly Glu Thr Val
 50 55 60
 Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu Tyr Thr Ser
 65 70 75 80
 His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu Gly Pro Glu
 85 90 95
 Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr Asn Leu Arg
 100 105 110
 Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser Ile Leu Lys
 115 120 125
 His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro Gly Met Glu
 130 135 140
 Ile Pro Lys His Gly Phe His Leu Val Ile Glu Leu Glu Asp Leu Gly
 145 150 155 160
 Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Thr Arg Glu Pro Gly Ala
 165 170 175
 Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu
 180 185 190
 Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe
 195 200 205
 Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val
 210 215 220
 Glu Val Gln Gly Glu Ala Ile Pro Leu Val Leu Ala Leu Phe Ala Phe
 225 230 235 240
 Val Gly Phe Met Leu Ile Leu Val Val Val Pro Leu Phe Val Trp Lys
 245 250 255
 Met Gly Arg Leu Leu Gln Tyr Ser Cys Cys Pro Val Val Val Leu Pro
 260 265 270
 Asp Thr Leu Lys Ile Thr Asn Ser Pro Gln Val Asn Gln Leu Gln Lys
 275 280 285
 Gly Gly Gly Cys Leu Cys His Gly Cys Asp Val Ser
 290 295 300

<210> 20

<211> 1081

<212> DNA

<213> Homo sapiens

<220>

D022201-26/54260

<221> CDS
 <222> (9)...(1067)

<400> 20				
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1 5 10				
ctt ttc atg tgg ttt ttc tac gca ttg att cca tgt ttg ctc aca gat				98
Leu Phe Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp				
15 20 25 30				
gaa gtg gcc att ctg cct gcc cct cag aac ctc tct gta ctc tca acc				146
Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser Thr				
35 40 45				
aac atg aag cat ctc ttg atg tgg agc cca gtg atc ggc cct gga gaa				194
Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly Glu				
50 55 60				
aca gtg tac tat tct gtc gaa tac cag ggg gag tac gag agc ctg tac				242
Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu Tyr				
65 70 75				
acg agc cac atc tgg atc ccc agc agc tgg tgc tca ctc act gaa ggt				290
Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu Gly				
80 85 90				
cct gag tgt gat gtc act gat gac atc acg gcc act gtg cca tac aac				338
Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr Asn				
95 100 105 110				
ctt cgt gtc agg gcc aca ttg ggc tca cag acc tca gcc tgg agc atc				386
Leu Arg Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser Ile				
115 120 125				
ctg aag cat ccc ttt aat aga aac tca acc atc ctt acc cga cct ggg				434
Leu Lys His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro Gly				
130 135 140				
atg gag atc ccc aaa cat ggc ttc cac ctg gtt att gag ctg gag gac				482
Met Glu Ile Pro Lys His Gly Phe His Leu Val Ile Glu Leu Glu Asp				
145 150 155				

0022200 · 1122200 · 0067457902 · 1122200

ctg ggg ccc cag ttt gag ttc ctt gtg gcc tac tgg acg agg gag gag cct Leu Gly Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Thr Arg Glu Pro 160 165 170	530
ggt gcc gag gaa cat gtc aaa atg gtg agg agt ggg ggt att cca gtg Gly Ala Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro Val 175 180 185 190	578
cac cta gaa acc atg gag cca ggg gct gca tac tgt gtg aag gcc cag His Leu Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln 195 200 205	626
aca ttc gtg aag gcc att ggg agg tac agc gcc ttc agc cag aca gaa Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu 210 215 220	674
tgt gtg gag gtg caa gga gag gcc gga ggt ggt ggc agt gga ggc ggc Cys Val Glu Val Gln Gly Glu Ala Gly Gly Ser Gly Gly Ser Gly Gly 225 230 235	722
ggt agc gga ggc ggt ggc agt cga act gtg gct gca cca tct gtc ttc Gly Ser Gly Gly Gly Ser Arg Thr Val Ala Ala Pro Ser Val Phe 240 245 250	770
atc ttc ccg cca tct gat gag cag ttg aaa tct gga act gcc tct gtt Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val 255 260 265 270	818
gtg tgc ctg ctg aat aac ttc tat ccc aga gag gcc aaa gta cag tgg Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp 275 280 285	866
aag gtg gat aac gcc ctc caa tcg ggt aac tcc cag gag agt gtc aca Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr 290 295 300	914
gag cag gac agc aag gac agc acc tac agc ctc agc agc acc ctg acg Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr 305 310 315	962
ctg agc aaa gca gac tac gag aaa cac aaa gtc tac gcc tgc gaa gtc	1010

002224-262/54260

Leu Ser Lys Ala Asp Tyr Glu Lys His Val Tyr Ala Cys Glu Val
 320 325 330

acc cat cag ggc ctg agc tcg ccc gtc aca aag aac ttc aac agg gga
 Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly
 335 340 345 350

gag tgt taa tcttagggcg cgcc
 Glu Cys *

<210> 21
 <211> 352
 <212> PRT
 <213> Homo sapiens

<400> 21

Met	Gln	Thr	Phe	Thr	Met	Val	Leu	Glu	Glu	Ile	Trp	Thr	Ser	Leu	Phe
1					5				10				15		
Met	Trp	Phe	Phe	Tyr	Ala	Leu	Ile	Pro	Cys	Leu	Leu	Thr	Asp	Glu	Val
					20				25				30		
Ala	Ile	Leu	Pro	Ala	Pro	Gln	Asn	Leu	Ser	Val	Leu	Ser	Thr	Asn	Met
					35				40				45		
Lys	His	Leu	Leu	Met	Trp	Ser	Pro	Val	Ile	Ala	Pro	Gly	Glu	Thr	Val
					50				55				60		
Tyr	Tyr	Ser	Val	Glu	Tyr	Gln	Gly	Glu	Tyr	Glu	Ser	Leu	Tyr	Thr	Ser
					65				70				75		
His	Ile	Trp	Ile	Pro	Ser	Ser	Trp	Cys	Ser	Leu	Thr	Glu	Gly	Pro	Glu
					85				90				95		
Cys	Asp	Val	Thr	Asp	Asp	Ile	Thr	Ala	Thr	Val	Pro	Tyr	Asn	Leu	Arg
					100				105				110		
Val	Arg	Ala	Thr	Leu	Gly	Ser	Gln	Thr	Ser	Ala	Trp	Ser	Ile	Leu	Lys
					115				120				125		
His	Pro	Phe	Asn	Arg	Asn	Ser	Thr	Ile	Leu	Thr	Arg	Pro	Gly	Met	Glu
					130				135				140		
Ile	Pro	Lys	His	Gly	Phe	His	Leu	Val	Ile	Glu	Leu	Glu	Asp	Leu	Gly
					145				150				155		
Pro	Gln	Phe	Leu	Val	Ala	Tyr	Trp	Thr	Arg	Glu	Pro	Gly	Ala		160
					165				170				175		
Glu	Glu	His	Val	Lys	Met	Val	Arg	Ser	Gly	Gly	Ile	Pro	Val	His	Leu
					180				185				190		
Glu	Thr	Met	Glu	Pro	Gly	Ala	Ala	Tyr	Cys	Val	Lys	Ala	Gln	Thr	Phe
					195				200				205		

Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val
 210 215 220
 Glu Val Gln Gly Glu Ala Gly Gly Ser Gly Gly Gly Ser
 225 230 235 240
 Gly Gly Gly Ser Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
 245 250 255
 Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
 260 265 270
 Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
 275 280 285
 Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
 290 295 300
 Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
 305 310 315 320
 Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
 325 330 335
 Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 340 345 350

<210> 22
<211> 1801
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (8)...(1789)

<400> 22

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 Met Asp Ala Met Lys Arg Gly Leu Cys Cys Val Leu Leu Leu
 1 5 10

tgt ggc gcc gtc ttc gtt tcg ctc agc cag gaa atc cat gcc gag ttg
 Cys Gly Ala Val Phe Val Ser Leu Ser Gln Glu Ile His Ala Glu Leu
 15 20 25 30

aga cgc ttc cgt aga gtt ccc tgt gtc tct ggt ggt ttg cct aaa cct
 Arg Arg Phe Arg Arg Val Pro Cys Val Ser Gly Gly Leu Pro Lys Pro
 35 40 45

gca aac atc acc ttc tta tcc atc aac atg aag aat gtc cta caa tgg

49

97

145

193

Ala Asn Ile Thr Phe Leu Ser Ile Asn Met Lys Asn Val Leu Gln Trp			
50	55	60	
act cca cca gag ggt ctt caa gga gtt aaa gtt act tac act gtg cag			241
Thr Pro Pro Glu Gly Leu Gln Gly Val Lys Val Thr Tyr Thr Val Gln			
65	70	75	
tat ttc ata tat ggg caa aag aaa tgg ctg aat aaa tca gaa tgc aga			289
Tyr Phe Ile Tyr Gly Gln Lys Lys Trp Leu Asn Lys Ser Glu Cys Arg			
80	85	90	
aat atc aat aga acc tac tgt gat ctt tct gct gaa act tct gac tac			337
Asn Ile Asn Arg Thr Tyr Cys Asp Leu Ser Ala Glu Thr Ser Asp Tyr			
95	100	105	110
gaa cac cag tat tat gcc aaa gtt aag gcc att tgg gga aca aag tgt			385
Glu His Gln Tyr Tyr Ala Lys Val Lys Ala Ile Trp Gly Thr Lys Cys			
115	120	125	
tcc aaa tgg gct gaa agt gga cgg ttc tat cct ttt tta gaa aca caa			433
Ser Lys Trp Ala Glu Ser Gly Arg Phe Tyr Pro Phe Leu Glu Thr Gln			
130	135	140	
att ggc cca cca gag gtg gca ctg act aca gat gag aag tcc att tct			481
Ile Gly Pro Pro Glu Val Ala Leu Thr Thr Asp Glu Lys Ser Ile Ser			
145	150	155	
gtt gtc ctg aca gct cca gag aag tgg aag aga aat cca gaa gac ctt			529
Val Val Leu Thr Ala Pro Glu Lys Trp Lys Arg Asn Pro Glu Asp Leu			
160	165	170	
cct gtt tcc atg caa caa ata tac tcc aat ctg aag tat aac gtg tct			577
Pro Val Ser Met Gln Gln Ile Tyr Ser Asn Leu Lys Tyr Asn Val Ser			
175	180	185	190
gtg ttg aat act aaa tca aac aga acg tgg tcc cag tgt gtg acc aac			625
Val Leu Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn			
195	200	205	
cac acg ctg gtg ctc acc tgg ctg gag ccg aac act ctt tac tgc gta			673
His Thr Leu Val Leu Thr Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val			
210	215	220	

09/24/2022 12:22:00

cac gtg gag tcc ttc gtc cca ggg ccc cct cgc cgt gct cag cct tct His Val Glu Ser Phe Val Pro Gly Pro Pro Arg Arg Ala Gln Pro Ser	225	230	235	721
gag aag cag tgt gcc agg act ttg aaa gat caa ggt gga ggc ggt tca Glu Lys Glu Cys Ala Arg Thr Leu Lys Asp Gln Gly Gly Gly Ser	240	245	250	769
ggc gga ggt ggc tct ggc ggt ggc gga tcg gcc tcc acc aag ggc cca Gly Gly Gly Ser Gly Gly Gly Ser Ala Ser Thr Lys Gly Pro	255	260	265	817
tcg gtc ttc ccc ctg gca ccc tcc tcc aag agc acc tct ggg ggc aca Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr	275	280	285	865
gcg gcc ctg ggc tgc ctg gtc aag gac tac ttc ccc gaa ccg gtg acg Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr	290	295	300	913
gtg tcg tgg aac tca ggc gcc ctg acc agc ggc gtg cac acc ttc ccg Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro	305	310	315	961
gct gtc cta cag tcc tca gga ctc tac tcc ctc agc agc gtg gtg acc Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr	320	325	330	1009
gtg ccc tcc agc agc ttg ggc acc cag acc tac atc tgc aac gtg aat Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn	335	340	345	1057
cac aag ccc agc aac acc aag gtg gac aag aaa gtt gag ccc aaa tct His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser	355	360	365	1105
tgt gac aaa act cac aca tgc cca ccg tgc cca gca cct gaa gcc gag Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Glu	370	375	380	1153
ggg gca ccg tca gtc ttc ctc ttc ccc cca aaa ccc aag gac acc ctc Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu	385	390	395	1201

atg atc tcc cgg acc cct gag gtc aca tgc gtg gtg gac gtg agc Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser 400 405 410	1249
cac gaa gac cct gag gtc aag ttc aac tgg tac gtg gac ggc gtg gag His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu 415 420 425 430	1297
gtg cat aat gcc aag aca aag ccg cgg gag gag cag tac aac agc acg Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr 435 440 445	1345
tac cgt gtg gtc agc gtc ctc acc gtc ctg cac cag gac tgg ctg aat Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn 450 455 460	1393
ggc aag gag tac aag tgc aag gtc tcc aac aaa gcc ctc cca tcc tcc Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ser Ser 465 470 475	1441
atc gag aaa acc atc tcc aaa gcc aaa ggg cag ccc cga gaa cca cag Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln 480 485 490	1489
gtg tac acc ctg ccc cca tcc cgg gat gag ctg acc aag aac cag gtc Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val 495 500 505 510	1537
agc ctg acc tgc ctg gtc aaa ggc ttc tat ccc agc gac atc gcc gtg Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val 515 520 525	1585
gag tgg gag agc aat ggg cag ccg gag aac aac tac aag acc acg cct Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Thr Thr Pro 530 535 540	1633
ccc gtg ctg gac tcc gac ggc tcc ttc ttc ctc tac agc aag ctc acc Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr 545 550 555	1681
gtg gac aag agc agg tgg cag cag ggg aac gtc ttc tca tgc tcc gtg	1729

0972522311222001

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 560 565 570 1777

atg cat gag gct ctg cac aac cac tac acg cag aag agc ctc tcc ctg
 Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 575 580 585 590

tct ccg ggt aaa taatcttagat ct 1801
 Ser Pro Gly Lys

<210> 23
 <211> 594
 <212> PRT
 <213> Homo sapiens

<400> 23

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Ala Val Phe Val Ser Leu Ser Gln Glu Ile His Ala Glu Leu Arg Arg
 20 25 30

Phe Arg Arg Val Pro Cys Val Ser Gly Gly Leu Pro Lys Pro Ala Asn
 35 40 45

Ile Thr Phe Leu Ser Ile Asn Met Lys Asn Val Leu Gln Trp Thr Pro
 50 55 60

Pro Glu Gly Leu Gln Gly Val Lys Val Thr Tyr Thr Val Gln Tyr Phe
 65 70 75 80

Ile Tyr Gly Gln Lys Lys Trp Leu Asn Lys Ser Glu Cys Arg Asn Ile
 85 90 95

Asn Arg Thr Tyr Cys Asp Leu Ser Ala Glu Thr Ser Asp Tyr Glu His
 100 105 110

Gln Tyr Tyr Ala Lys Val Lys Ala Ile Trp Gly Thr Lys Cys Ser Lys
 115 120 125

Trp Ala Glu Ser Gly Arg Phe Tyr Pro Phe Leu Glu Thr Gln Ile Gly
 130 135 140

Pro Pro Glu Val Ala Leu Thr Thr Asp Glu Lys Ser Ile Ser Val Val
 145 150 155 160

Leu Thr Ala Pro Glu Lys Trp Lys Arg Asn Pro Glu Asp Leu Pro Val
 165 170 175

Ser Met Gln Gln Ile Tyr Ser Asn Leu Lys Tyr Asn Val Ser Val Leu
 180 185 190

Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn His Thr
 195 200 205

Leu Val Leu Thr Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val His Val
 210 215 220
 Glu Ser Phe Val Pro Gly Pro Pro Arg Arg Ala Gln Pro Ser Glu Lys
 225 230 235 240
 Gln Cys Ala Arg Thr Leu Lys Asp Gln Gly Gly Gly Ser Gly Gly
 245 250 255
 Gly Gly Ser Gly Gly Gly Ser Ala Ser Thr Lys Gly Pro Ser Val
 260 265 270
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 275 280 285
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 290 295 300
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 305 310 315 320
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 325 330 335
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 340 345 350
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 355 360 365
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Glu Gly Ala
 370 375 380
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 385 390 395 400
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 405 410 415
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 420 425 430
 Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
 435 440 445
 Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 450 455 460
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ser Ser Ile Glu
 465 470 475 480
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 485 490 495
 Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
 500 505 510
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 515 520 525
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 530 535 540

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 545 550 555 560
 Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 565 570 575
 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 580 585 590
 Gly Lys

<210> 24
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 <212> DNA
 <213> Homo sapiens

<400> 24
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<210> 25
 <211> 52
 <212> DNA
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<400> 25
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<210> 26
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<210> 27
 <211> 38
 <212> DNA
 <213> Homo sapiens

<400> 27
 ggcgcgcctc tagattaaca ctctccccctg ttgaagct 38

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 ctcccgtaga gttccctgtg tctctggtg ttt 33
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 gccagagcca cctccgcctg aaccgcctcc accttgatct ttcaaagtcc tgg 53
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 caggcggagg tggctctg cgtggcgat cggcctccac caagggccca t 51
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 <212> DNA
 <213> Homo sapiens
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 <400> 33

ctgggcacgg tgggcatgtg	20
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cacatgccca ccgtgcccag	20
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agatctagat tatttacccg gagacagggg a g	31
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Met His Thr Pro Gly Thr	
1 5	
ccg gcg ccg ggc cac ccg gac ccg ccg cca ctg ttg ctg ctc acg ctg	103
Pro Ala Pro Gly His Pro Asp Pro Pro Leu Leu Leu Leu Thr Leu	
10 15 20	
ctt ctg ctg ctg gcc gct tcg gga cgc gca gtt cct tgt gtc ttc tgt	151
Leu Leu Leu Ala Ala Ser Gly Arg Ala Val Pro Cys Val Phe Cys	
25 30 35	
ggt ttg cct aaa cct aca aat atc acc ttc tta tcc atc aac atg aag	199
Gly Leu Pro Lys Pro Thr Asn Ile Thr Phe Leu Ser Ile Asn Met Lys	
40 45 50	

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aat gtc ctg cat tgg aat cca cca gag agt cta cac gga gtt gaa gtc Asn Val Leu His Trp Asn Pro Pro Glu Ser Leu His Gly Val Glu Val 55 60 65 70	247
aca tac act gtgcaa tat ttcata tat gggcag aaaa ttgtctg aat Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly Gln Lys Lys Trp Leu Asn 75 80 85	295
gcc tct aaa tgc ggg agt atc aac agg acc tac tgt gac ctt tct gtt Ala Ser Lys Cys Gly Ser Ile Asn Arg Thr Tyr Cys Asp Leu Ser Val 90 95 100	343
gag acc tca gac tat gaa cac cag ttc tat gcc aaa gtg aag gcc att Glu Thr Ser Asp Tyr Glu His Gln Phe Tyr Ala Lys Val Lys Ala Ile 105 110 115	391
tgg gaa gcc agg tgc tcc gaa tgg gcc gag acg gaa cgc ttc tat cct Trp Glu Ala Arg Cys Ser Glu Trp Ala Glu Thr Glu Arg Phe Tyr Pro 120 125 130	439
ttc ttg gaa act caa gtc agc cca cca gag att gcc ctg aca act ggc Phe Leu Glu Thr Gln Val Ser Pro Pro Glu Ile Ala Leu Thr Thr Gly 135 140 145 150	487
gag aag tcc atc tct att gcc ctg aca gca cca gag aag tgg aaa aga Glu Lys Ser Ile Ser Ile Ala Leu Thr Ala Pro Glu Lys Trp Lys Arg 155 160 165	535
aat cca caa gac cac act gtt tct atg caa cag ata tac ccc aat ttg Asn Pro Gln Asp His Thr Val Ser Met Gln Gln Ile Tyr Pro Asn Leu 170 175 180	583
aag tac aat gtg tct gtg tat aac act aag tcg aga aga acg tgg tcc Lys Tyr Asn Val Ser Val Tyr Asn Thr Lys Ser Arg Arg Thr Trp Ser 185 190 195	631
cag tgt gtc acc aac agc aca ctg gtc ctc agc tgg ctg gag ccc aac Gln Cys Val Thr Asn Ser Thr Leu Val Leu Ser Trp Leu Glu Pro Asn 200 205 210	679
act ctg tat tgt gtc cac gtg gag tcc ctt gtc cca ggg ccc cct cgc	727

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Thr Leu Tyr Cys Val His Val Glu Ser Leu Val Pro Gly Pro Pro Arg	215	220	225	230
ctc ccg atg cct tct cag aag cag tgc atc agt act ttg gaa gtt caa				775
Leu Pro Met Pro Ser Gln Lys Gln Cys Ile Ser Thr Leu Glu Val Gln				
235	240	245		
aca tca gca tgg aag gct aaa gtc atc ttc tgg tat gtc ttc ctc aca				823
Thr Ser Ala Trp Lys Ala Lys Val Ile Phe Trp Tyr Val Phe Leu Thr				
250	255	260		
tct gtt atc gtg ttt ctt ttc tcc gca att ggc tac ttg gtt tac cgt				871
Ser Val Ile Val Phe Leu Phe Ser Ala Ile Gly Tyr Leu Val Tyr Arg				
265	270	275		
tac atc cat gtt ggc aag gaa aaa cac cca gca aat ttg gta ctg att				919
Tyr Ile His Val Gly Lys Glu Lys His Pro Ala Asn Leu Val Leu Ile				
280	285	290		
tat aga aat gaa att ggc aca aga gtc ttt gaa cct act gaa aca atc				967
Tyr Arg Asn Glu Ile Gly Thr Arg Val Phe Glu Pro Thr Glu Thr Ile				
295	300	305	310	
aca ctt aat ttt atc acc ttc agt atg ttg gat gat act aaa att tct				1015
Thr Leu Asn Phe Ile Thr Phe Ser Met Leu Asp Asp Thr Lys Ile Ser				
315	320	325		
cca aag gat atg aat tta ctg gac aaa agc agt gat gac atc agt gtt				1063
Pro Lys Asp Met Asn Leu Leu Asp Lys Ser Ser Asp Asp Ile Ser Val				
330	335	340		
aat gac cct gag cac aat gag gcc tgg gag ccc cac tgg gag gag gtg				1111
Asn Asp Pro Glu His Asn Glu Ala Trp Glu Pro His Trp Glu Glu Val				
345	350	355		
gag ggg caa cat tta gga tgc tct tcg cat ttg atg gac gct gtc tgt				1159
Glu Gly Gln His Leu Gly Cys Ser Ser His Leu Met Asp Ala Val Cys				
360	365	370		
ggc gct gag caa aga gac gga gac acc tcc cta acc cag cat ggg tgg				1207
Gly Ala Glu Gln Arg Asp Gly Asp Thr Ser Leu Thr Gln His Gly Trp				
375	380	385	390	

ctt aac agc acc atc ccc aca gga gag aca gac act gag cct caa tac Leu Asn Ser Thr Ile Pro Thr Gly Glu Thr Asp Thr Glu Pro Gln Tyr 395	400	405	1255
aaa gtc cta agt gac ttc tac ggg gag ggt gaa atc caa ctg tcc tgt Lys Val Leu Ser Asp Phe Tyr Gly Glu Gly Glu Ile Gln Leu Ser Cys 410	415	420	1303
gag ccg gaa gag gcg gcc aga aca gag aaa ata tct gag cca ctg gtg Glu Pro Glu Glu Ala Ala Arg Thr Glu Lys Ile Ser Glu Pro Leu Val 425	430	435	1351
act tca gca aac ttg gac cca cag ctt gaa gac cta cat cac ctg ggt Thr Ser Ala Asn Leu Asp Pro Gln Leu Glu Asp Leu His His Leu Gly 440	445	450	1399
cag gag cat act gtc tcc gag gat ggg cca gag gaa gag aca tct ata Gln Glu His Thr Val Ser Glu Asp Gly Pro Glu Glu Glu Thr Ser Ile 455	460	465	1447
aca gta gtg gat tgg gac cct caa act ggc agg ctg tgt atc cct tcc Thr Val Val Asp Trp Asp Pro Gln Thr Gly Arg Leu Cys Ile Pro Ser 475	480	485	1495
tta cct atc ttt ggc cgt gat cct gag aac tat ggt cat tat gag aga Leu Pro Ile Phe Gly Arg Asp Pro Glu Asn Tyr Gly His Tyr Glu Arg 490	495	500	1543
gac cag ctc tta gag ggt ggc ctt ttg tct aga ctc tat gag aac cag Asp Gln Leu Leu Glu Gly Gly Leu Leu Ser Arg Leu Tyr Glu Asn Gln 505	510	515	1591
gca cct gac aag cca gag aaa gaa aat gaa aac tgt ctc aca cgg ttt Ala Pro Asp Lys Pro Glu Lys Glu Asn Glu Asn Cys Leu Thr Arg Phe 520	525	530	1639
atg gag gaa tgg ggg tta cat gta caa atg gaa agc tagtgccagg Met Glu Glu Trp Gly Leu His Val Gln Met Glu Ser 535	540	545	1685
ctttctgttg actgccaaca aatgaaggaa ccatcccagg gggttaacag tgttcagggt atcagtgtca gcatatggac tgttctctt gttcatgaac ttttgtcagcc ctgccttcac c			1745 1805 1806

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 <212> PRT
 <213> Mus musculus

<400> 37
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 Leu Leu Leu Thr Leu Leu Leu Leu Ala Ala Ser Gly Arg Ala
 20 25 30
 Val Pro Cys Val Phe Cys Gly Leu Pro Lys Pro Thr Asn Ile Thr Phe
 35 40 45
 Leu Ser Ile Asn Met Lys Asn Val Leu His Trp Asn Pro Pro Glu Ser
 50 55 60
 Leu His Gly Val Glu Val Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly
 65 70 75 80
 Gln Lys Lys Trp Leu Asn Ala Ser Lys Cys Gly Ser Ile Asn Arg Thr
 85 90 95
 Tyr Cys Asp Leu Ser Val Glu Thr Ser Asp Tyr Glu His Gln Phe Tyr
 100 105 110
 Ala Lys Val Lys Ala Ile Trp Glu Ala Arg Cys Ser Glu Trp Ala Glu
 115 120 125
 Thr Glu Arg Phe Tyr Pro Phe Tyr Leu Glu Thr Gln Val Ser Pro Pro Glu
 130 135 140
 Ile Ala Leu Thr Thr Gly Glu Lys Ser Ile Ser Ile Ala Leu Thr Ala
 145 150 155 160
 Pro Glu Lys Trp Lys Arg Asn Pro Gln Asp His Thr Val Ser Met Gln
 165 170 175
 Gln Ile Tyr Pro Asn Leu Lys Tyr Asn Val Ser Val Tyr Asn Thr Lys
 180 185 190
 Ser Arg Arg Thr Trp Ser Gln Cys Val Thr Asn Ser Thr Leu Val Leu
 195 200 205
 Ser Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Leu
 210 215 220
 Val Pro Gly Pro Pro Arg Leu Pro Met Pro Ser Gln Lys Gln Cys Ile
 225 230 235 240
 Ser Thr Leu Glu Val Gln Thr Ser Ala Trp Lys Ala Lys Val Ile Phe
 245 250 255
 Trp Tyr Val Phe Leu Thr Ser Val Ile Val Phe Leu Phe Ser Ala Ile
 260 265 270
 Gly Tyr Leu Val Tyr Arg Tyr Ile His Val Gly Lys Glu Lys His Pro
 275 280 285

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Ala Asn Leu Val Leu Ile Tyr Arg Asn Glu Ile Gly Thr Arg Val Phe
 290 295 300
 Glu Pro Thr Glu Thr Ile Thr Leu Asn Phe Ile Thr Phe Ser Met Leu
 305 310 315 320
 Asp Asp Thr Lys Ile Ser Pro Lys Asp Met Asn Leu Leu Asp Lys Ser
 325 330 335
 Ser Asp Asp Ile Ser Val Asn Asp Pro Glu His Asn Glu Ala Trp Glu
 340 345 350
 Pro His Trp Glu Glu Val Glu Gly Gln His Leu Gly Cys Ser Ser His
 355 360 365
 Leu Met Asp Ala Val Cys Gly Ala Glu Gln Arg Asp Gly Asp Thr Ser
 370 375 380
 Leu Thr Gln His Gly Trp Leu Asn Ser Thr Ile Pro Thr Gly Glu Thr
 385 390 395 400
 Asp Thr Glu Pro Gln Tyr Lys Val Leu Ser Asp Phe Tyr Gly Glu Gly
 405 410 415
 Glu Ile Gln Leu Ser Cys Glu Pro Glu Glu Ala Ala Arg Thr Glu Lys
 420 425 430
 Ile Ser Glu Pro Leu Val Thr Ser Ala Asn Leu Asp Pro Gln Leu Glu
 435 440 445
 Asp Leu His His Leu Gly Gln Glu His Thr Val Ser Glu Asp Gly Pro
 450 455 460
 Glu Glu Glu Thr Ser Ile Thr Val Val Asp Trp Asp Pro Gln Thr Gly
 465 470 475 480
 Arg Leu Cys Ile Pro Ser Leu Pro Ile Phe Gly Arg Asp Pro Glu Asn
 485 490 495
 Tyr Gly His Tyr Glu Arg Asp Gln Leu Leu Glu Gly Leu Leu Ser
 500 505 510
 Arg Leu Tyr Glu Asn Gln Ala Pro Asp Lys Pro Glu Lys Glu Asn Glu
 515 520 525
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 530 535 540
 Glu Ser
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<210> 38
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 <212> PRT
 <213> Mus musculus

<400> 38

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Leu Ser Ile Asn Met Lys Asn Val Leu His Trp Asn Pro Pro Glu Ser
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 Leu His Glu Val Glu Val Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly
 35 40 45
 Gln Lys Lys Trp Leu Asn Ala Ser Lys Cys Gly Ser Ile Asn Arg Thr
 50 55 60
 Tyr Cys Asp Leu Ser Val Glu Thr Ser Asp Tyr Glu His Gln Phe Tyr
 65 70 75 80
 Ala Lys Val Lys Ala Ile Trp Glu Ala Arg Cys Ser Glu Trp Ala Glu
 85 90 95
 Thr Glu Arg Phe Tyr Pro Phe Leu Glu Thr Gln Val Ser Pro Pro Glu
 100 105 110
 Ile Ala Leu Thr Thr Gly Glu Lys Ser Ile Ser Ile Ala Leu Thr Ala
 115 120 125
 Pro Glu Lys Trp Lys Arg Asn Pro Gln Asp His Thr Val Ser Met Gln
 130 135 140
 Gln Ile Tyr Pro Asn Leu Lys Tyr Asn Val Ser Val Tyr Asn Thr Lys
 145 150 155 160
 Ser Arg Arg Thr Trp Ser Gln Cys Val Thr Asn Ser Thr Leu Val Leu
 165 170 175
 Ser Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Leu
 180 185 190
 Val Pro Gly Pro Pro Arg Leu Pro Met Pro Ser Gln Lys Gln Cys Ile
 195 200 205
 Ser Thr Leu Glu Val Gln Thr Ser Ala
 210 215

<210> 39
 <211> 514
 <212> PRT
 <213> Mus musculus

<400> 39
 Val Pro Cys Val Phe Cys Gly Leu Pro Lys Pro Thr Asn Ile Thr Phe
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 Leu Ser Ile Asn Met Lys Asn Val Leu His Trp Asn Pro Pro Glu Ser
 20 25 30
 Leu His Gly Val Glu Val Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly
 35 40 45
 Gln Lys Lys Trp Leu Asn Ala Ser Lys Cys Gly Ser Ile Asn Arg Thr
 50 55 60
 Tyr Cys Asp Leu Ser Val Glu Thr Ser Asp Tyr Glu His Gln Phe Tyr
 65 70 75 80

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Ala Lys Val Lys Ala Ile Trp Glu Ala Arg Cys Ser Glu Trp Ala Glu
 85 90 95
 Thr Glu Arg Phe Tyr Pro Phe Leu Glu Thr Gln Val Ser Pro Pro Glu
 100 105 110
 Ile Ala Leu Thr Thr Gly Glu Lys Ser Ile Ser Ile Ala Leu Thr Ala
 115 120 125
 Pro Glu Lys Trp Lys Arg Asn Pro Gln Asp His Thr Val Ser Met Gln
 130 135 140
 Gln Ile Tyr Pro Asn Leu Lys Tyr Asn Val Ser Val Tyr Asn Thr Lys
 145 150 155 160
 Ser Arg Arg Thr Trp Ser Gln Cys Val Thr Asn Ser Thr Leu Val Leu
 165 170 175
 Ser Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Leu
 180 185 190
 Val Pro Gly Pro Pro Arg Leu Pro Met Pro Ser Gln Lys Gln Cys Ile
 195 200 205
 Ser Thr Leu Glu Val Gln Thr Ser Ala Trp Lys Ala Lys Val Ile Phe
 210 215 220
 Trp Tyr Val Phe Leu Thr Ser Val Ile Val Phe Leu Phe Ser Ala Ile
 225 230 235 240
 Gly Tyr Leu Val Tyr Arg Tyr Ile His Val Gly Lys Glu Lys His Pro
 245 250 255
 Ala Asn Leu Val Leu Ile Tyr Arg Asn Glu Ile Gly Thr Arg Val Phe
 260 265 270
 Glu Pro Thr Glu Thr Ile Thr Leu Asn Phe Ile Thr Phe Ser Met Leu
 275 280 285
 Asp Asp Thr Lys Ile Ser Pro Lys Asp Met Asn Leu Leu Asp Lys Ser
 290 295 300
 Ser Asp Asp Ile Ser Val Asn Asp Pro Glu His Asn Glu Ala Trp Glu
 305 310 315 320
 Pro His Trp Glu Glu Val Glu Gly Gln His Leu Gly Cys Ser Ser His
 325 330 335
 Leu Met Asp Ala Val Cys Gly Ala Glu Gln Arg Asp Gly Asp Thr Ser
 340 345 350
 Leu Thr Gln His Gly Trp Leu Asn Ser Thr Ile Pro Thr Gly Glu Thr
 355 360 365
 Asp Thr Glu Pro Gln Tyr Lys Val Leu Ser Asp Phe Tyr Gly Glu Gly
 370 375 380
 Glu Ile Gln Leu Ser Cys Glu Pro Glu Glu Ala Ala Arg Thr Glu Lys
 385 390 395 400
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<212> DNA
<213> *Mus musculus*

<400> 40
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<210> 41
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<212> DNA
<213> Mus musculus

<400> 41
controversy continues cont'd

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<211> 36
<212> DNA
<212> Homo sapiens

<400> 42

<210> 43
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aattgaga	8
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cgcgtctc	8
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gtcacttgaa ttccgttaccg cctctgttgt gtgcctg	37
<210> 47	
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<213> Homo sapiens	
<400> 47	
gacctgaacg cgtctaacaac tctccccgt tg	32
<210> 48	
<211> 38	
<212> DNA	
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<400> 48	
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<210> 49 <211> 35 <212> DNA <213> Homo sapiens	
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<210> 52 <211> 1720 <212> DNA <213> Homo sapiens	
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ctg gcg gcg cct tgg gga cgg gca gtt ccc tgt gtc tct ggt ggt ttg Leu Ala Ala Pro Trp Gly Arg Ala Val Pro Cys Val Ser Gly Gly Leu 20 25 30	96

002221 "26/547/60

cct aaa cct gca aac atc acc ttc tta tcc atc aac atg aag aat gtc Pro Lys Pro Ala Asn Ile Thr Phe Leu Ser Ile Asn Met Lys Asn Val		144
35 40 45		
cta caa tgg act cca cca gag ggt ctt caa gga gtt aaa gtt act tac Leu Gln Trp Thr Pro Pro Glu Gly Leu Gln Gly Val Lys Val Thr Tyr		192
50 55 60		
act gtg cag tat ttc ata tat ggg caa aag aaa tgg ctg aat aaa tca Thr Val Gln Tyr Phe Ile Tyr Gly Gln Lys Lys Trp Leu Asn Lys Ser		240
65 70 75 80		
gaa tgc aga aat atc aat aga acc tac tgt gat ctt tct gct gaa act Glu Cys Arg Asn Ile Asn Arg Thr Tyr Cys Asp Leu Ser Ala Glu Thr		288
85 90 95		
tct gac tac gaa cac cag tat tat gcc aaa gtt aag gcc att tgg gga Ser Asp Tyr Glu His Gln Tyr Tyr Ala Lys Val Lys Ala Ile Trp Gly		336
100 105 110		
aca aag tgt tcc aaa tgg gct gaa agt gga cgg ttc tat cct ttt tta Thr Lys Cys Ser Lys Trp Ala Glu Ser Gly Arg Phe Tyr Pro Phe Leu		384
115 120 125		
gaa aca caa att ggc cca cca gag gtg gca ctg act aca gat gag aag Glu Thr Gln Ile Gly Pro Pro Glu Val Ala Leu Thr Thr Asp Glu Lys		432
130 135 140		
tcc att tct gtt gtc ctg aca gct cca gag aag tgg aag aga aat cca Ser Ile Ser Val Val Leu Thr Ala Pro Glu Lys Trp Lys Arg Asn Pro		480
145 150 155 160		
gaa gac ctt cct gtt tcc atg caa caa ata tac tcc aat ctg aag tat Glu Asp Leu Pro Val Ser Met Gln Gln Ile Tyr Ser Asn Leu Lys Tyr		528
165 170 175		
aac gtg tct gtg ttg aat act aaa tca aac aga acg tgg tcc cag tgt Asn Val Ser Val Leu Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln Cys		576
180 185 190		
gtg acc aac cac acg ctg gtg ctc acc tgg ctg gag ccg aac act ctt Val Thr Asn His Thr Leu Val Leu Thr Trp Leu Glu Pro Asn Thr Leu		624
195 200 205		

tac tgc gta cac gtg gag tcc ttc gtc cca ggg ccc cct cgc cgt gct Tyr Cys Val His Val Glu Ser Phe Val Pro Gly Pro Pro Arg Arg Ala 210 215 220	672
cag cct tct gag aag cag tgt gcc agg act ttg aaa gat caa tca tca Gln Pro Ser Glu Lys Gln Cys Ala Arg Thr Leu Lys Asp Gln Ser Ser 225 230 235 240	720
gag gct agc acc aag ggc cca tcg gtc ttc ccc ctg gca ccc tcc tcc Glu Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser 245 250 255	768
aag agc acc tct ggg ggc aca gcg gcc ctg ggc tgc ctg gtc aag gac Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp 260 265 270	816
tac ttc ccc gaa ccg gtg acg gtg tcg tgg aac tca ggc gcc ctg acc Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr 275 280 285	864
agc ggc gtg cac acc ttc ccg gct gtc cta cag tcc tca gga ctc tac Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr 290 295 300	912
tcc ctc agc agc gtg gtg acc gtg ccc tcc agc agc ttg ggc acc cag Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Leu Gly Thr Gln 305 310 315 320	960
acc tac atc tgc aac gtg aat cac aag ccc agc aac acc aag gtg gac Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp 325 330 335	1008
aag aaa gtt gag ccc aaa tct tgt gac aaa act cac aca tgc cca ccg Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro - 340 345 350	1056
tgc cca gca cct gaa ctc ctg ggg gga ccg tca gtc ttc ctc ttc ccc Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro 355 360 365	1104
cca aaa ccc aag gac acc ctc atg atc tcc cgg acc cct gag gtc aca	1152

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr			
370	375	380	
tgc gtg gtg gac gtg agc cac gaa gac cct gag gtc aag ttc aac			1200
Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn			
385	390	395	400
tgg tac gtg gac ggc gtg gag gtg cat aat gcc aag aca aag ccg ccg			1248
Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg			
405	410	415	
gag gag cag tac aac agc acg tac cgt gtg gtc agc gtc ctc acc gtc			1296
Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val			
420	425	430	
ctg cac cag gac tgg ctg aat ggc aag gag tac aag tgc aag gtc tcc			1344
Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser			
435	440	445	
aac aaa gcc ctc cca gcc ccc atc gag aaa acc atc tcc aaa gcc aaa			1392
Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys			
450	455	460	
ggg cag ccc cga gaa cca cag gtg tac acc ctg ccc cca tcc cggtt			1440
Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp			
465	470	475	480
gag ctg acc aag aac cag gtc agc ctg acc tgc ctg gtc aaa ggc ttc			1488
Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe			
485	490	495	
tat ccc agc gac atc gcc gtg gag tgg gag agc aat ggg cag ccg gag			1536
Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu			
500	505	510	
aac aac tac aag acc acg cct ccc gtg ctg gac tcc gac ggc tcc ttc			1584
Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe			
515	520	525	
ttc ctc tac agc aag ctc acc gtg gac aag agc agg tgg cag cag ggg			1632
Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly			
530	535	540	

aac gtc ttc tca tgc tcc gtg atg cat gag gct ctg cac aac cac tac		1680	
Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr			
545	550	555	560
acg cag aag agc ctc tcc ctg tct ccg ggt aaa tgacgcg		1720	
Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys			
565	570		
<210> 53			
<211> 571			
<212> PRT			
<213> Homo sapiens			
<400> 53			
Met Arg Ala Pro Gly Arg Pro Ala Leu Arg Pro Leu Leu Leu Leu			
1	5	10	15
Leu Ala Ala Pro Trp Gly Arg Ala Val Pro Cys Val Ser Gly Gly Leu			
20	25	30	
Pro Lys Pro Ala Asn Ile Thr Phe Leu Ser Ile Asn Met Lys Asn Val			
35	40	45	
Leu Gln Trp Thr Pro Pro Glu Gly Leu Gln Gly Val Lys Val Thr Tyr			
50	55	60	
Thr Val Gln Tyr Phe Ile Tyr Gly Gln Lys Lys Trp Leu Asn Lys Ser			
65	70	75	80
Glu Cys Arg Asn Ile Asn Arg Thr Tyr Cys Asp Leu Ser Ala Glu Thr			
85	90	95	
Ser Asp Tyr Glu His Gln Tyr Tyr Ala Lys Val Lys Ala Ile Trp Gly			
100	105	110	
Thr Lys Cys Ser Lys Trp Ala Glu Ser Gly Arg Phe Tyr Pro Phe Leu			
115	120	125	
Glu Thr Gln Ile Gly Pro Pro Glu Val Ala Leu Thr Thr Asp Glu Lys			
130	135	140	
Ser Ile Ser Val Val Leu Thr Ala Pro Glu Lys Trp Lys Arg Asn Pro			
145	150	155	160
Glu Asp Leu Pro Val Ser Met Gln Gln Ile Tyr Ser Asn Leu Lys Tyr			
165	170	175	
Asn Val Ser Val Leu Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln Cys			
180	185	190	
Val Thr Asn His Thr Leu Val Leu Thr Trp Leu Glu Pro Asn Thr Leu			
195	200	205	
Tyr Cys Val His Val Glu Ser Phe Val Pro Gly Pro Pro Arg Arg Ala			
210	215	220	

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Gln Pro Ser Glu Lys Gln Cys Ala Arg Thr Leu Lys Asp Gln Ser Ser
 225 230 235 240
 Glu Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 245 250 255
 Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
 260 265 270
 Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 275 280 285
 Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 290 295 300
 Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
 305 310 315 320
 Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 325 330 335
 Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 340 345 350
 Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
 355 360 365
 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 370 375 380
 Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
 385 390 395 400
 Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
 405 410 415
 Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
 420 425 430
 Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
 435 440 445
 Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
 450 455 460
 Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
 465 470 475 480
 Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
 485 490 495
 Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
 500 505 510
 Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
 515 520 525
 Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
 530 535 540
 Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
 545 550 555 560

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 565 570

<210> 54
 <211> 547
 <212> PRT
 <213> Homo sapiens

<400> 54

Val	Pro	Cys	Val	Ser	Gly	Gly	Leu	Pro	Lys	Pro	Ala	Asn	Ile	Thr	Phe
1															
Leu	Ser	Ile	Asn	Met	Lys	Asn	Val	Leu	Gln	Trp	Thr	Pro	Pro	Glu	Gly
				20				25							30
Leu	Gln	Gly	Val	Lys	Val	Thr	Tyr	Thr	Val	Gln	Tyr	Phe	Ile	Tyr	Gly
				35			40								45
Gln	Lys	Lys	Trp	Leu	Asn	Lys	Ser	Glu	Cys	Arg	Asn	Ile	Asn	Arg	Thr
				50			55								60
Tyr	Cys	Asp	Leu	Ser	Ala	Glu	Thr	Ser	Asp	Tyr	Glu	His	Gln	Tyr	Tyr
				65			70								80
Ala	Lys	Val	Lys	Ala	Ile	Trp	Gly	Thr	Lys	Cys	Ser	Lys	Trp	Ala	Glu
				85			90								95
Ser	Gly	Arg	Phe	Tyr	Pro	Phe	Leu	Glu	Thr	Gln	Ile	Gly	Pro	Pro	Glu
				100			105								110
Val	Ala	Leu	Thr	Thr	Asp	Glu	Lys	Ser	Ile	Ser	Val	Val	Leu	Thr	Ala
				115			120								125
Pro	Glu	Lys	Trp	Lys	Arg	Asn	Pro	Glu	Asp	Leu	Pro	Val	Ser	Met	Gln
				130			135								140
Gln	Ile	Tyr	Ser	Asn	Leu	Lys	Tyr	Asn	Val	Ser	Val	Leu	Asn	Thr	Lys
				145			150								160
Ser	Asn	Arg	Thr	Trp	Ser	Gln	Cys	Val	Thr	Asn	His	Thr	Leu	Val	Leu
				165			170								175
Thr	Trp	Leu	Glu	Pro	Asn	Thr	Leu	Tyr	Cys	Val	His	Val	Glu	Ser	Phe
				180			185								190
Val	Pro	Gly	Pro	Pro	Arg	Arg	Ala	Gln	Pro	Ser	Glu	Lys	Gln	Cys	Ala
				195			200								205
Arg	Thr	Leu	Lys	Asp	Gln	Ser	Ser	Glu	Ala	Ser	Thr	Lys	Gly	Pro	Ser
				210			215								220
Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala
				225			230								240
Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val
				245			250								255
Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala
				260			265								270

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 275 280 285
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 290 295 300
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 305 310 315 320
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 325 330 335
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 340 345 350
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 355 360 365
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 370 375 380
 His Asn Ala Lys Thr Lys Pro Arg Glu Gln Tyr Asn Ser Thr Tyr
 385 390 395 400
 Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 405 410 415
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 420 425 430
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 435 440 445
 Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
 450 455 460
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 465 470 475 480
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 485 490 495
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 500 505 510
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 515 520 525
 His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 530 535 540
 Pro Gly Lys
 545

<210> 55
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 55

Val Pro Cys Val Ser Gly Gly Leu Pro Lys Pro Ala Asn Ile Thr Phe
 1 5 10 15
 Leu Ser Ile Asn Met Lys Asn Val Leu Gln Trp Thr Pro Pro Glu Gly
 20 25 30
 Leu Gln Gly Val Lys Val Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly
 35 40 45
 Gln Lys Lys Trp Leu Asn Lys Ser Glu Cys Arg Asn Ile Asn Arg Thr
 50 55 60
 Tyr Cys Asp Leu Ser Ala Glu Thr Ser Asp Tyr Glu His Gln Tyr Tyr
 65 70 75 80
 Ala Lys Val Lys Ala Ile Trp Gly Thr Lys Cys Ser Lys Trp Ala Glu
 85 90 95
 Ser Gly Arg Phe Tyr Pro Phe Leu Glu Thr Gln Ile Gly Pro Pro Glu
 100 105 110
 Val Ala Leu Thr Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr Ala
 115 120 125
 Pro Glu Lys Trp Lys Arg Asn Pro Glu Asp Leu Pro Val Ser Met Gln
 130 135 140
 Gln Ile Tyr Ser Asn Leu Lys Tyr Asn Val Ser Val Leu Asn Thr Lys
 145 150 155 160
 Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn His Thr Leu Val Leu
 165 170 175
 Thr Trp Leu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Phe
 180 185 190
 Val Pro Gly Pro Pro Arg Arg Ala Gln Pro Ser Glu Lys Gln Cys Ala
 195 200 205
 Arg Thr Leu Lys Asp Gln Ser Ser Glu
 210 215

<210> 56
 <211> 1011
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)...(1008)

<400> 56

atg cag act ttc aca atg gtt cta gaa gaa atc tgg aca agt ctt ttc
 Met Gln Thr Phe Thr Met Val Leu Glu Glu Ile Trp Thr Ser Leu Phe
 1 5 10 15

atg tgg ttt ttc tac gca ttg att cca tgt ttg ctc aca gat gaa gtg Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp Glu Val 20 25 30	96
gcc att ctg cct gcc cct cag aac ctc tct gta ctc tca acc aac atg Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser Thr Asn Met 35 40 45	144
aag cat ctc ttg atg tgg agc cca gtg atc gcg cct gga gaa aca gtg Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly Glu Thr Val 50 55 60	192
tac tat tct gtc gaa tac cag ggg gag tac gag agc ctg tac acg agc Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu Tyr Thr Ser 65 70 75 80	240
cac atc tgg atc ccc agc agc tgg tgc tca ctc act gaa ggt cct gag His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu Gly Pro Glu 85 90 95	288
tgt gat gtc act gat gac atc acg gcc act gtg cca tac aac ctt cgt Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr Asn Leu Arg 100 105 110	336
gtc agg gcc aca ttg ggc tca cag acc tca gcc tgg agc atc ctg aag Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser Ile Leu Lys 115 120 125	384
cat ccc ttt aat aga aac tca acc atc ctt acc cga cct ggg atg gag His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro Gly Met Glu 130 135 140	432
atc acc aaa gat ggc ttc cac ctg gtt att gag ctg gag gac ctg ggg Ile Thr Lys Asp Gly Phe His Leu Val Ile Glu Leu Glu Asp Leu Gly 145 150 155 160	480
ccc cag ttt gag ttc ctt gtg gcc tac tgg agg agg gag gag cct ggt gcc Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala 165 170 175	528
gag gaa cat gtc aaa atg gtg agg agt ggg ggt att cca gtg cac cta Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu 180 185 190	576

gaa acc atg gag cca ggg gct gca tac tgt gtg aag gcc cag aca ttc Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe 195 200 205	624
gtg aag gcc att ggg agg tac agc gcc ttc agc cag aca gaa tgt gtg Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val 210 215 220	672
gag gtg caa gga gag gcc act gtg gct gca cca tct gtc ttc atc ttc Glu Val Gln Gly Glu Ala Thr Val Ala Ala Pro Ser Val Phe Ile Phe 225 230 235 240	720
ccg cca tct gat gag cag ttg aaa tct ggt acc gcc tct gtt gtg tgc Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys 245 250 255	768
ctg ctg aat aac ttc tat ccc aga gag gcc aaa gta cag tgg aag gtg Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val 260 265 270	816
gat aac gcc ctc caa tcg ggt aac tcc cag gag agt gtc aca gag cag Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln 275 280 285	864
gac agc aag gac agc acc tac agc ctc agc agc acc ctg acg ctg agc Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser 290 295 300	912
aaa gca gac tac gag aaa cac aaa gtc tac gcc tgc gaa gtc acc cat Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His 305 310 315 320	960
cag ggc ctg agc tcg ccc gtc aca aag agc ttc aac agg gga gag tgt Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys 325 330 335	1008
tag	1011
<210> 57	
<211> 336	
<212> PRT	
<213> Homo sapiens	

<400> 57
 Met Gln Thr Phe Thr Met Val Leu Glu Glu Ile Trp Thr Ser Leu Phe
 1 5 10 15
 Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp Glu Val
 20 25 30
 Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser Thr Asn Met
 35 40 45
 Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly Glu Thr Val
 50 55 60
 Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu Tyr Thr Ser
 65 70 75 80
 His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu Gly Pro Glu
 85 90 95
 Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr Asn Leu Arg
 100 105 110
 Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser Ile Leu Lys
 115 120 125
 His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro Gly Met Glu
 130 135 140
 Ile Thr Lys Asp Gly Phe His Leu Val Ile Glu Leu Glu Asp Leu Gly
 145 150 155 160
 Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala
 165 170 175
 Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu
 180 185 190
 Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe
 195 200 205
 Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val
 210 215 220
 Glu Val Gln Gly Glu Ala Ala Thr Val Ala Ala Pro Ser Val Phe Ile Phe
 225 230 235 240
 Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
 245 250 255
 Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
 260 265 270
 Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
 275 280 285
 Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
 290 295 300
 Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
 305 310 315 320

Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
325 330 335

<210> 58

<211> 307

<212> PRT

<213> Homo sapiens

<400> 58

Asp Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
1 5 10 15

Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly
20 25 30

Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu
 25 30 35 40 45

35 40 45
Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu
50 55 60

50 55 60
Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr
55 60 65

65 70 75 80
Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser

85 90 95

Ile Leu Lys His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro

100 105 110
 Gly Met Glu Ile Thr Lys Asp Gly Phe His Leu Val Ile Glu Leu Glu

115 120 125
Asp Leu Gly Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Arg Arg Glu

130 135 140
Pro Gly Ala Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro

145 150 155 160
 Val His Leu Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala

165 170 175
Gln Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr

180 185 190
 Glu Cys Val Glu Val Gln Gly Glu Ala Thr Val Ala Ala Pro Ser Val

195 200 205
Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser

210	215	220													
Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gly

225 230 235 240
Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val

245 250 255
 Thr Glu Glu Asp Ser | ys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu

260 265 270

Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Val Tyr Ala Cys Glu
 275 280 285
 Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg
 290 295 300
 Gly Glu Cys
 305

<210> 59
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 59
 Asp Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
 1 5 10 15
 Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly
 20 25 30
 Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu
 35 40 45
 Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu
 50 55 60
 Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr
 65 70 75 80
 Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser
 85 90 95
 Ile Leu Lys His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro
 100 105 110
 Gly Met Glu Ile Thr Lys Asp Gly Phe His Leu Val Ile Glu Leu Glu
 115 120 125
 Asp Leu Gly Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Arg Arg Glu
 130 135 140
 Pro Gly Ala Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro
 145 150 155 160
 Val His Leu Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala
 165 170 175
 Gln Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr
 180 185 190
 Glu Cys Val Glu Val Gln Gly Glu Ala
 195 200

<210> 60
 <211> 323
 <212> PRT

<213> Homo sapiens

<400> 60

Asp	Glu	Val	Ala	Ile	Leu	Pro	Ala	Pro	Gln	Asn	Leu	Ser	Val	Leu	Ser
1				5					10					15	
Thr	Asn	Met	Lys	His	Leu	Leu	Met	Trp	Ser	Pro	Val	Ile	Ala	Pro	Gly
				20					25				30		
Glu	Thr	Val	Tyr	Tyr	Ser	Val	Glu	Tyr	Gln	Gly	Glu	Tyr	Glu	Ser	Leu
				35					40			45			
Tyr	Thr	Ser	His	Ile	Trp	Ile	Pro	Ser	Ser	Trp	Cys	Ser	Leu	Thr	Glu
				50					55			60			
Gly	Pro	Glu	Cys	Asp	Val	Thr	Asp	Asp	Ile	Thr	Ala	Thr	Val	Pro	Tyr
	65				70				75				80		
Asn	Leu	Arg	Val	Arg	Ala	Thr	Leu	Gly	Ser	Gln	Thr	Ser	Ala	Trp	Ser
				85					90			95			
Ile	Leu	Lys	His	Pro	Phe	Asn	Arg	Asn	Ser	Thr	Ile	Leu	Thr	Arg	Pro
				100					105			110			
Gly	Met	Glu	Ile	Pro	Lys	His	Gly	Phe	His	Leu	Val	Ile	Glu	Leu	Glu
				115					120			125			
Asp	Leu	Gly	Pro	Gln	Phe	Glu	Phe	Leu	Val	Ala	Tyr	Trp	Thr	Arg	Glu
				130					135			140			
Pro	Gly	Ala	Glu	Glu	His	Val	Lys	Met	Val	Arg	Ser	Gly	Gly	Ile	Pro
	145					150				155				160	
Val	His	Leu	Glu	Thr	Met	Glu	Pro	Gly	Ala	Ala	Tyr	Cys	Val	Lys	Ala
					165				170			175			
Gln	Thr	Phe	Val	Lys	Ala	Ile	Gly	Arg	Tyr	Ser	Ala	Phe	Ser	Gln	Thr
				180					185			190			
Glu	Cys	Val	Glu	Val	Gln	Gly	Glu	Ala	Gly	Gly	Gly	Ser	Gly	Gly	
				195					200			205			
Gly	Gly	Ser	Gly	Gly	Gly	Ser	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	
				210					215			220			
Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser
	225					230				235			240		
Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln
				245					250			255			
Trp	Lys	Val	Asp	Asn	Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln	Glu	Ser	Val
				260					265			270			
Thr	Glu	Gln	Asp	Ser	Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser	Ser	Thr	Leu
				275					280			285			
Thr	Leu	Ser	Lys	Ala	Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr	Ala	Cys	Glu
				290					295			300			
Val	Thr	His	Gln	Gly	Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser	Phe	Asn	Arg
	305					310				315			320		

Gly Glu Cys

<210> 61

<211> 201

<212> PRT

<213> Homo sapiens

<400> 61

Asp	Glu	Val	Ala	Ile	Leu	Pro	Ala	Pro	Gln	Asn	Leu	Ser	Val	Leu	Ser
1															
Thr	Asn	Met	Lys	His	Leu	Leu	Met	Trp	Ser	Pro	Val	Ile	Ala	Pro	Gly
		20						25				30			
Glu	Thr	Val	Tyr	Tyr	Ser	Val	Glu	Tyr	Gln	Gly	Glu	Tyr	Glu	Ser	Leu
		35					40				45				
Tyr	Thr	Ser	His	Ile	Trp	Ile	Pro	Ser	Ser	Trp	Cys	Ser	Leu	Thr	Glu
			50					55			60				
Gly	Pro	Glu	Cys	Asp	Val	Thr	Asp	Asp	Ile	Thr	Ala	Thr	Val	Pro	Tyr
65					70				75				80		
Asn	Leu	Arg	Val	Arg	Ala	Thr	Leu	Gly	Ser	Gln	Thr	Ser	Ala	Trp	Ser
								85		90		95			
Ile	Leu	Lys	His	Pro	Phe	Asn	Arg	Asn	Ser	Thr	Ile	Leu	Thr	Arg	Pro
					100				105				110		
Gly	Met	Glu	Ile	Pro	Lys	His	Gly	Phe	His	Leu	Val	Ile	Glu	Leu	Glu
			115					120				125			
Asp	Leu	Gly	Pro	Gln	Phe	Glu	Phe	Leu	Val	Ala	Tyr	Trp	Thr	Arg	Glu
			130				135				140				
Pro	Gly	Ala	Glu	Glu	His	Val	Lys	Met	Val	Arg	Ser	Gly	Gly	Ile	Pro
145								150			155			160	
Val	His	Leu	Glu	Thr	Met	Glu	Pro	Gly	Ala	Ala	Tyr	Cys	Val	Lys	Ala
								165			170			175	
Gln	Thr	Phe	Val	Lys	Ala	Ile	Gly	Arg	Tyr	Ser	Ala	Phe	Ser	Gln	Thr
			180					185				190			
Glu	Cys	Val	Glu	Val	Gln	Gly	Glu	Ala							
				195			200								

<210> 62

<211> 559

<212> PRT

<213> Homo sapiens

<400> 62

Val	Pro	Cys	Val	Ser	Gly	Gly	Leu	Pro	Lys	Pro	Ala	Asn	Ile	Thr	Phe
1															

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Leu Ser Ile Asn Met Lys Asn Val Leu Gln Trp Thr Pro Pro Glu Gly
 20 25 30

Leu Gln Gly Val Lys Val Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly
 35 40 45

Gln Lys Lys Trp Leu Asn Lys Ser Glu Cys Arg Asn Ile Asn Arg Thr
 50 55 60

Tyr Cys Asp Leu Ser Ala Glu Thr Ser Asp Tyr Glu His Gln Tyr Tyr
 65 70 75 80

Ala Lys Val Lys Ala Ile Trp Gly Thr Lys Cys Ser Lys Trp Ala Glu
 85 90 95

Ser Gly Arg Phe Tyr Pro Phe Leu Glu Thr Gln Ile Gly Pro Pro Glu
 100 105 110

Val Ala Leu Thr Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr Ala
 115 120 125

Pro Glu Lys Trp Lys Arg Asn Pro Glu Asp Leu Pro Val Ser Met Gln
 130 135 140

Gln Ile Tyr Ser Asn Leu Lys Tyr Asn Val Ser Val Leu Asn Thr Lys
 145 150 155 160

Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn His Thr Leu Val Leu
 165 170 175

Thr Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Phe
 180 185 190

Val Pro Gly Pro Pro Arg Arg Ala Gln Pro Ser Glu Lys Gln Cys Ala
 195 200 205

Arg Thr Leu Lys Asp Gln Gly Gly Gly Ser Gln Gly Gly Gly Ser
 210 215 220

Gly Gly Gly Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
 225 230 235 240

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
 245 250 255

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
 260 265 270

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
 275 280 285

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
 290 295 300

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
 305 310 315 320

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
 325 330 335

Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Glu Gly Ala Pro Ser Val
 340 345 350

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
 355 360 365
 Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
 370 375 380
 Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
 385 390 395 400
 Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
 405 410 415
 Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
 420 425 430
 Cys Lys Val Ser Asn Lys Ala Leu Pro Ser Ser Ile Glu Lys Thr Ile
 435 440 445
 Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
 450 455 460
 Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
 465 470 475 480
 Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
 485 490 495
 Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
 500 505 510
 Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
 515 520 525
 Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
 530 535 540
 His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 545 550 555 .

<210> 63
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 63
 Val Pro Cys Val Ser Gly Gly Leu Pro Lys Pro Ala Asn Ile Thr Phe
 1 5 10 15
 Leu Ser Ile Asn Met Lys Asn Val Leu Gln Trp Thr Pro Pro Glu Gly
 20 25 30
 Leu Gln Gly Val Lys Val Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly
 35 40 45
 Gln Lys Lys Trp Leu Asn Lys Ser Glu Cys Arg Asn Ile Asn Arg Thr
 50 55 60
 Tyr Cys Asp Leu Ser Ala Glu Thr Ser Asp Tyr Glu His Gln Tyr Tyr
 65 70 75 80

Ala Lys Val Lys Ala Ile Trp Gly Thr Lys Cys Ser Lys Trp Ala Glu
 85 90 95
 Ser Gly Arg Phe Tyr Pro Phe Leu Glu Thr Gln Ile Gly Pro Pro Glu
 100 105 110
 Val Ala Leu Thr Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr Ala
 115 120 125
 Pro Glu Lys Trp Lys Arg Asn Pro Glu Asp Leu Pro Val Ser Met Gln
 130 135 140
 Gln Ile Tyr Ser Asn Leu Lys Tyr Asn Val Ser Val Leu Asn Thr Lys
 145 150 155 160
 Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn His Thr Leu Val Leu
 165 170 175
 Thr Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Phe
 180 185 190
 Val Pro Gly Pro Pro Arg Arg Ala Gln Pro Ser Glu Lys Gln Cys Ala
 195 200 205
 Arg Thr Leu Lys Asp Gln
 210

<210> 64
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 64
 Glu Glu Ile His Ala Glu Leu Arg Arg Phe Arg Arg Val Pro Cys Val
 1 5 10 15
 Ser Gly Gly

<210> 65
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 65
 Leu Pro Lys Pro Ala Asn Ile Thr Phe Leu Ser Ile Asn Met Lys Asn
 1 5 10 15
 Val Leu Gln Trp Thr Pro Pro Glu Gly Leu Gln Gln Val Lys Val Thr
 20 25 30
 Tyr Thr Val Gln Tyr Phe Ile Tyr Gly Gln Lys Lys Trp Leu Asn Lys
 35 40 45
 Ser Glu Cys Arg Asn Ile Asn Arg Thr Tyr Cys Asp Leu Ser Ala Glu
 50 55 60

Thr Ser Asp Tyr Glu His Gln Tyr Tyr Ala Lys Val Lys Ala Ile Trp
 65 70 75 80
 Gly Thr Lys Cys Ser Lys Trp Ala Glu Ser Gly Arg Phe Tyr Pro Phe
 85 90 95
 Leu Glu Thr Gln Ile Gly Pro Pro Glu Val Ala Leu Thr Thr Asp Glu
 100 105 110
 Lys Ser Ile Ser Val Val Leu Thr Ala Pro Glu Lys Trp Lys Arg Asn
 115 120 125
 Pro Glu Asp Leu Pro Val Ser Met Gln Gln Ile Tyr Ser Asn Leu Lys
 130 135 140
 Tyr Asn Val Ser Val Leu Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln
 145 150 155 160
 Cys Val Thr Asn His Thr Leu Val Leu Thr Trp Leu Glu Pro Asn Thr
 165 170 175
 Leu Tyr Cys Val His Val Glu Ser Phe Val Pro Gln Pro Pro Arg Arg
 180 185 190
 Ala Gln Pro Ser Glu Lys Gln Cys Ala Arg Thr Leu Lys Asp Gln
 195 200 205

<210> 66
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 66
 Cys Arg Asn Ile Asn Arg Thr Tyr Cys Asp Leu Ser Ala Glu Thr Ser
 1 5 10 15
 Asp Tyr Glu His Gln Tyr Tyr Ala Lys Val Lys Ala Ile Trp Gly Thr
 20 25 30
 Lys Cys Ser Lys Trp Ala Glu Ser Gly Arg Phe Tyr Pro Phe Leu Glu
 35 40 45
 Thr Gln Ile Gly Pro Pro Glu Val Ala Leu Thr Thr Asp Glu Lys Ser
 50 55 60
 Ile Ser Val Val Leu Thr Ala Pro Glu Lys Trp Lys Arg Asn Pro Glu
 65 70 75 80
 Asp Leu Pro Val Ser Met Gln Gln Ile Tyr Ser Asn Leu Lys Tyr Asn
 85 90 95
 Val Ser Val Leu Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln Cys Val
 100 105 110
 Thr Asn His Thr Leu Val Leu Thr Trp Leu Glu Pro Asn Thr Leu Tyr
 115 120 125
 Cys Val His Val Glu Ser Phe Val Pro Gln Pro Pro Arg Arg Ala Gln
 130 135 140

Pro Ser Glu Lys Gln Cys
145 150

<210> 67

<211> 196

<212> PRT

<213> Homo sapiens

<400> 67

Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser Thr Asn Met Lys His
1 5 10 15
Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly Glu Thr Val Tyr Tyr
20 25 30
Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu Tyr Thr Ser His Ile
35 40 45
Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu Gly Pro Glu Cys Asp
50 55 60
Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr Asn Leu Arg Val Arg
65 70 75 80
Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser Ile Leu Lys His Pro
85 90 95
Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro Gly Met Glu Ile Thr
100 105 110
Lys Asp Gly Phe His Leu Val Ile Glu Leu Glu Asp Leu Gly Pro Gln
115 120 125
Phe Glu Phe Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala Glu Glu
130 135 140
His Val Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu Glu Thr
145 150 155 160
Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe Val Lys
165 170 175
Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val Glu Val
180 185 190
Gln Gly Glu Ala
195

<210> 68

<211> 203

<212> PRT

<213> Homo sapiens

<400> 68

00322142200136261460

Asp Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
 1 5 10 15
 Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly
 20 25 30
 Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu
 35 40 45
 Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu
 50 55 60
 Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr
 65 70 75 80
 Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser
 85 90 95
 Ile Leu Lys His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro
 100 105 110
 Gly Met Glu Ile Pro Lys His Gly Phe His Leu Val Ile Glu Leu Glu
 115 120 125
 Asp Leu Gly Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Thr Arg Glu
 130 135 140
 Pro Gly Ala Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro
 145 150 155 160
 Val His Leu Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala
 165 170 175
 Gln Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr
 180 185 190
 Glu Cys Val Glu Val Gln Gly Glu Ala Ile Pro
 195 200

<210> 69
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 69

Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser Thr Asn Met Lys His
 1 5 10 15
 Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly Glu Thr Val Tyr Tyr
 20 25 30
 Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu Tyr Thr Ser His Ile
 35 40 45
 Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu Gly Pro Glu Cys Asp
 50 55 60
 Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr Asn Leu Arg Val Arg
 65 70 75 80

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Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser Ile Leu Lys His Pro
 85 90 95
 Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro Gly Met Glu Ile Pro
 100 105 110
 Lys His Gly Phe His Leu Val Ile Glu Leu Glu Asp Leu Gly Pro Gln
 115 120 125
 Phe Glu Phe Leu Val Ala Tyr Trp Thr Arg Glu Pro Gly Ala Glu Glu
 130 135 140
 His Val Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu Glu Thr
 145 150 155 160
 Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe Val Lys
 165 170 175
 Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val Glu Val
 180 185 190
 Gln Gly Glu Ala
 195

<210> 70
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 70

Cys Ser Leu Thr Glu Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr
 1 5 10 15
 Ala Thr Val Pro Tyr Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln
 20 25 30
 Thr Ser Ala Trp Ser Ile Leu Lys His Pro Phe Asn Arg Asn Ser Thr
 35 40 45
 Ile Leu Thr Arg Pro Gly Met Glu Ile Thr Lys Asp Gly Phe His Leu
 50 55 60
 Val Ile Glu Leu Glu Asp Leu Gly Pro Gln Phe Glu Phe Leu Val Ala
 65 70 75 80
 Tyr Trp Arg Arg Glu Pro Gly Ala Glu Glu His Val Lys Met Val Arg
 85 90 95
 Ser Gly Gly Ile Pro Val His Leu Glu Thr Met Glu Pro Gly Ala Ala
 100 105 110
 Tyr Cys Val Lys Ala Gln Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser
 115 120 125
 Ala Phe Ser Gln Thr Glu Cys
 130 135

<210> 71

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 71
 Cys Ser Leu Thr Glu Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr
 1 5 10 15
 Ala Thr Val Pro Tyr Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln
 20 25 30
 Thr Ser Ala Trp Ser Ile Leu Lys His Pro Phe Asn Arg Asn Ser Thr
 35 40 45
 Ile Leu Thr Arg Pro Gly Met Glu Ile Pro Lys His Gly Phe His Leu
 50 55 60
 Val Ile Glu Leu Glu Asp Leu Gly Pro Gln Phe Glu Phe Leu Val Ala
 65 70 75 80
 Tyr Trp Thr Arg Glu Pro Gly Ala Glu Glu His Val Lys Met Val Arg
 85 90 95
 Ser Gly Gly Ile Pro Val His Leu Glu Thr Met Glu Pro Gly Ala Ala
 100 105 110
 Tyr Cys Val Lys Ala Gln Thr Phe Val Lys Ala Ile Gly Arg Tyr Ser
 115 120 125
 Ala Phe Ser Gln Thr Glu Cys
 130 135

<210> 72
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 72
 Gly Gly Gly Ser Gly Gly Ser Gly Gly Ser Gly Gly Ser
 1 5 10 15

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